

DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2000/2001 BIENNIAL BUDGET
ESTIMATES



JUSTIFICATION OF ESTIMATES
FEBRUARY 1999

OTHER PROCUREMENT, NAVY
BUDGET ACTIVITY 4

UNCLASSIFIED

Department of the Navy

FY 2000/2001 Procurement Program

Exhibit P-1

APPROPRIATION: 1810N Other Procurement, Navy

DATE: February 1999

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 2000 UNIT COST	TOA, \$ IN MILLIONS								S E C
				-----FY 1998-----		-----FY 1999-----		-----FY 2000-----		-----FY 2001-----		
----	-----	-----	-----	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	----
BUDGET ACTIVITY 04: Ordnance Support Equipment												

Ship Gun System Equipment												
144	5110 Gun Fire Control Equipment	A			9.5		31.1		5.9		18.6	U
Ship Missile Systems Equipment												
145	5208 MK-92 Fire Control System	A			.9		1.0		-		-	U
146	5227 HARPOON Support Equipment	A			.2		-		-		-	U
147	5233 TARTAR Support Equipment	A			3.3		.*		-		-	U
148	5234 Point Defense Support Equipme	A			12.4		.*		-		-	U
149	5237 NATO Seasparrow	A			-		7.3		.5		17.7	U
150	5238 RAM GMLS	A			66.2		59.5		39.3		43.0	U
151	5239 Ship Self Defense System	B			18.5		38.8		38.8		15.0	U
152	5246 AEGIS Support Equipment	A			23.0		93.8		86.7		71.7	U
153	5250 Surface TOMAHAWK Support Equi	A			64.1		97.6		85.8		71.9	U
154	5255 Submarine TOMAHAWK Support Eq	A			-		3.9		2.1		2.8	U
155	5260 Vertical Launch Systems	A			5.7		7.8		7.2		7.0	U
FBM Support Equipment												
156	5355 Strategic Platform Support Eq	A			2.3		3.0		9.4		4.6	U

* ITEMS UNDER \$50,000

UNCLASSIFIED

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Department of the Navy

FY 2000/2001 Procurement Program

Exhibit P-1

APPROPRIATION: 1810N Other Procurement, Navy

DATE: February 1999

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS)	TOA, \$ IN MILLIONS								S E C
			FY 2000 UNIT COST	-----FY 1998----- QUANTITY COST	-----FY 1999----- QUANTITY COST	-----FY 2000----- QUANTITY COST	-----FY 2001----- QUANTITY COST					
157	5358 Strategic Missile Systems Equ	A			219.4		277.5		239.5		162.7	U
158	5530 Anti-ship Missile Decoy Syste	A			16.4		22.0		20.4		19.6	U
	ASW Support Equipment											
159	5420 SSN Combat Control Systems	A			18.9		17.4		26.1		23.5	U
160	5431 Submarine ASW Support Equipme	A			3.4		3.7		3.7		3.9	U
161	5449 Surface ASW Support Equipment	A			5.8		4.9		6.1		6.4	U
162	5455 ASW Range Support Equipment	A			3.4		4.5		6.4		6.8	U
	Other Ordnance Support Equipment											
163	5509 Explosive Ordnance Disposal	E B			6.8		7.2		9.0		9.4	U
164	5518 Unmanned Seaborne Target	A			2.2		1.9		-		-	U
165	5542 Industrial Facilities (Calibr	A			1.3		1.0		-		-	U
166	5543 Items Less Than \$5 Million	A			-		-		4.4		4.9	U
167	5545 Stock Surveillance Equipment	A			1.3		1.4		-		-	U
	Other Expendable Ordnance											
168	5635 Fleet Mine Support Equipment	A			4.6		.*		-		-	U
169	5660 Surface Training Device Mods	A			8.6		6.9		10.7		8.1	U
170	5661 Submarine Training Device Mod	A			22.2		23.7		27.6		29.8	U
171	5666 Acquisition Stability Reserve				-		-		-		140.8	U
	TOTAL Ordnance Support Equipment				520.4		716.0		629.4		668.4	
	* ITEMS UNDER \$50,000											

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Other Procurement, Navy
Program and Financing (in Thousands of dollars)

Budget Plan (amounts for PROCUREMENT
actions programed)

Identification code	17-1810-0-1-051	1998 actual	1999 est.	2000 est.	2001 est.

Program by activities:					
Direct program:					
00.0101	Ships support equipment	727,750	954,401	858,709	703,509
00.0201	Communications and electronics equipment	1,095,702	1,629,901	1,845,227	1,531,094
00.0301	Aviation support equipment	204,148	243,679	216,237	215,043
00.0401	Ordnance support equipment	520,423	715,972	629,418	668,357
00.0501	Civil engineering support equipment	48,370	54,856	67,144	94,062
00.0601	Supply support equipment	54,583	89,537	139,628	180,239
00.0701	Personnel and command support equipment	136,986	74,063	67,598	67,570
00.0801	Spares and repair parts	219,654	246,506	276,130	180,279
00.9101 Total direct program		3,007,616	4,008,915	4,100,091	3,640,153
01.0101 Reimbursable program		49,428	42,000	42,000	42,000
10.0001 Total		3,057,044	4,050,915	4,142,091	3,682,153

Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	-1,417	-42,000	-42,000	-42,000
14.0001	Non-Federal sources(-)	-48,011			
17.0001	Recovery of prior year obligations				
Unobligated balance available, start of year:					
21.4002	For completion of prior year budget plans				
21.4003	Available to finance new budget plans	-7,700	-28,500		
21.4009	Reprogramming from/to prior year budget plans	-20,391			
22.1001	Unobligated balance transferred to other accounts	11,177			
Unobligated balance available, end of year:					
24.4002	For completion of prior year budget plans				
24.4003	Available to finance subsequent year budget plans	28,500			
25.0001	Unobligated balance expiring	9,214			
39.0001 Budget authority		3,028,416	3,980,415	4,100,091	3,640,153

Budget authority:					
40.0001	Appropriation	3,136,505	4,005,415	4,100,091	3,640,153
40.3601	Appropriation rescinded (unob bal)		-28,500		
40.7601	Reduction pursuant to P.L. 105-56 (-), 8035	-56,735			
41.0001	Transferred to other accounts (-)	-82,017			
42.0001	Transferred from other accounts	30,663	3,500		
43.0001 Appropriation (adjusted)		3,028,416	3,980,415	4,100,091	3,640,153

Other Procurement, Navy
Program and Financing (in Thousands of dollars)

Obligations

Identification code	17-1810-0-1-051	1998 actual	1999 est.	2000 est.	2001 est.

Program by activities:					
Direct program:					
00.0101	Ships support equipment	730,410	803,087	845,223	739,332
00.0201	Communications and electronics equipment	1,127,427	1,479,892	1,756,499	1,583,160
00.0301	Aviation support equipment	222,704	210,650	212,051	216,653
00.0401	Ordnance support equipment	511,296	612,449	611,088	664,897
00.0501	Civil engineering support equipment	46,899	46,682	62,833	88,063
00.0601	Supply support equipment	57,524	74,718	127,586	169,612
00.0701	Personnel and command support equipment	85,983	122,715	76,319	67,896
00.0801	Spares and repair parts	220,864	204,354	263,425	197,969
		-----	-----	-----	-----
00.9101	Total direct program	3,003,107	3,554,547	3,955,024	3,727,582
01.0101	Reimbursable program	46,543	47,000	42,526	42,000
		-----	-----	-----	-----
10.0001	Total	3,049,650	3,601,547	3,997,550	3,769,582

Financing:					
Offsetting collections from:					
11.0001	Federal funds(-)	-4,242	-42,000	-42,000	-42,000
14.0001	Non-Federal sources(-)	-46,448			
17.0001	Recovery of prior year obligations	-9,138			
Unobligated balance available, start of year:					
21.4002	For completion of prior year budget plans	-439,651	-437,055	-886,423	-1,030,964
21.4003	Available to finance new budget plans	-7,700	-28,500		
21.4009	Reprogramming from/to prior year budget plans				
22.1001	Unobligated balance transferred to other accounts	11,177			
Unobligated balance available, end of year:					
24.4002	For completion of prior year budget plans	437,055	886,423	1,030,964	943,535
24.4003	Available to finance subsequent year budget plans	28,500			
25.0001	Unobligated balance expiring	9,214			
		-----	-----	-----	-----
39.0001	Budget authority	3,028,416	3,980,415	4,100,091	3,640,153

Budget authority:					
40.0001	Appropriation	3,136,505	4,005,415	4,100,091	3,640,153
40.3601	Appropriation rescinded (unob bal)		-28,500		
40.7601	Reduction pursuant to P.L. 105-56 (-), 8035	-56,735			
41.0001	Transferred to other accounts (-)	-82,017			
42.0001	Transferred from other accounts	30,663	3,500		
		-----	-----	-----	-----
43.0001	Appropriation (adjusted)	3,028,416	3,980,415	4,100,091	3,640,153

Other Procurement, Navy
Program and Financing (in Thousands of dollars)

Obligations

Identification code	17-1810-0-1-051	1998 actual	1999 est.	2000 est.	2001 est.

Relation of obligations to outlays:					
71.0001	Obligations incurred	2,998,960	3,559,547	3,955,550	3,727,582
72.1001	From Federal sources: Receivables and unpaid, unfilled orders, SOY	-89,947	-78,045	-78,045	-78,045
72.4001	Obligated balance, start of year	3,407,474	3,193,644	3,249,253	3,563,053
74.1001	From Federal sources: Receivables and unpaid, unfilled orders, EOY	78,045	78,045	78,045	78,045
74.4001	Obligated balance, end of year	-3,193,644	-3,249,253	-3,563,053	-3,492,582
77.0001	Adjustments in expired accounts (net)	-230,320			
78.0001	Adjustments in unexpired accounts	-9,138			

90.0001	Outlays (net)	2,961,430	3,503,938	3,641,750	3,798,053

Other Procurement, Navy
Object Classification (in Thousands of dollars)

Identification code	17-1810-0-1-051	1998 actual	1999 est.	2000 est.	2001 est.

Direct obligations:					
125.101	Advisory and assistance services	20,243	25,686	25,286	25,804
	Purchases goods/services from Government accounts				
125.301	Purchase of goods/services from Government accounts	50,825	48,754	56,614	56,259
125.303	Purchases from revolving funds	647,649	708,534	799,399	737,514
126.001	Supplies and materials	109,613	133,007	105,941	58,389
131.001	Equipment	2,174,777	2,638,566	2,967,784	2,849,616
		-----	-----	-----	-----
199.001	Total Direct obligations	3,003,107	3,554,547	3,955,024	3,727,582
Reimbursable obligations:					
231.001	Equipment	46,543	47,000	42,526	42,000
		-----	-----	-----	-----
299.001	Total Reimbursable obligations	46,543	47,000	42,526	42,000
999.901	Total obligations	3,049,650	3,601,547	3,997,550	3,769,582

Comparison of FY 1998 Financing as reflected
in FY 1999 Budget with 1998 Financing as
Shown in the FY 2000 Budget

(\$ In Thousands)

	Financing Per FY 1999 Budget	Financing Per FY 2000 Budget	Increase (+) or Decrease (-)
Program Requirements (Total)	\$3,030,074	\$3,057,044	+\$26,970
Program Requirements (Service Account)	(\$2,988,074)	(\$3,007,616)	(+19,542)
Program Requirements (Reimbursable)	(\$42,000)	(\$49,428)	(+7,428)
Appropriation (Adjusted)	\$2,982,574	\$3,028,416	+\$45,842

Explanation of Changes in Financing

The Fiscal Year 1998 program has changed since the presentation of the FY 1999 budget as noted below:

1. Program Requirements. There has been a net increase to the appropriation (adjusted) of (+\$45,842). This net change is comprised of an increase in program requirements (+\$19,542) plus an increase in reimbursable authority of (+\$7,428).

Comparison of FY 1998 program requirements as reflected
in the FY 1999 Budget with FY 1998 program requirements
as shown in the FY 2000 Budget

Summary of Requirements
(\$ in Thousands)

	Total Program Requirements per FY 1999 Budget	Total Program Requirements per FY 2000 Budget	Increase (+) or Decrease (-)
Ships Support Equipment	\$721,811	\$724,150	+\$2,339
Communications and Electronic Equip	1,165,616	1,141,796	-23,820
Aviation Support Equipment	188,669	204,148	+15,479
Ordnance Support Equipment	517,909	520,423	+2,514
Civil Engineering Support Equip	46,404	51,970	+5,566
Supply Support Equipment	51,902	54,583	+2,681
Personnel and Command Support Equip	79,788	90,892	+11,104
Spares and Repair Parts	215,975	219,654	+3,679
Total Fiscal Year Program	\$2,988,074	\$3,007,616	+\$19,542

Explanation by Budget Activity
(\$ In Thousands)

1. SHIP SUPPORT EQUIPMENT (+\$2,339) - Net increase reflecting (-\$8,300) FY 1998 Congressional rescissions and internal reprogrammings (+\$10,639) including (+\$4,606) for Counter Drug Interdiction.

Explanation by Budget Activity (Continued)

(\$ In Thousands)

2. COMMUNICATIONS & ELECTRONIC EQUIPMENT (-\$23,820) - Net decrease reflecting (-\$2,300) FY 1998 Congressional rescission, decrease for economic assumptions (-\$7295), offsets for higher priority Navy programs, (-\$7829), and internal reprogramming actions of (-\$6396).
3. AVIATION SUPPORT EQUIPMENT (+\$15,479) - Net increase reflecting (+\$17,779) Congressional adjustments, and FY 1998 rescissions (-\$2,300).
4. ORDNANCE SUPPORT EQUIPMENT (+\$2,514) - Net increase reflecting FY 1998 rescissions (-\$15,000), and Congressional adjustments (+\$18,514).
5. CIVIL ENGINEERING SUPPORT (+\$5,566) - Net increase reflecting Congressional adjustments (+\$4,500), and internal realignments (+\$1,566).
6. SUPPLY SUPPORT EQUIPMENT (+\$2,691) - Net increase reflecting Congressional adjustments (-\$1,279), internal realignments (-\$330), and adjustment for Automated Teller Machines at Sea (+\$4,300).
7. PERSONNEL & COMMAND SUPPORT (+\$11,104) - Net increase reflecting Congressional adjustments (+\$8,000), economic assumptions (-\$932), and increases for high priority Navy programs including paperless acquisition (+\$4,036).
8. SPARES & REPAIR PARTS (+\$3,679) - Net increase reflecting economic assumptions (-\$1,381), and internal realignments (+\$5,060).

Comparison of FY 1999 Financing as reflected
in FY 1999 Budget with 1999 Financing as
Shown in the FY 2000 Budget

(\$ In Thousands)

	Financing Per FY 1999 Budget	Financing Per FY 2000 Budget	Increase (+) or Decrease (-)
Program Requirements (Total)	\$3,979,737	\$4,050,915	+\$71,178
Program Requirements (Service Account)	(\$3,937,737)	(\$4,008,915)	(+71,178)
Program Requirements (Reimbursable)	(\$42,000)	(\$42,000)	0
Appropriation (Adjusted)	\$3,937,737	\$3,980,415	+\$42,678

Explanation of Changes in Financing

The Fiscal Year 1998 program has changed since the presentation of the FY 1998 budget as noted below:

1. Program Requirements. There has been a net increase to the appropriation (adjusted) of +\$42,678. This net change is comprised of an increase in program requirements (+\$71,178), less rescissions of (-\$28,500).

Comparison of FY 1999 program requirements as reflected
in the FY 1999 Budget with FY 1999 program requirements
as shown in the FY 2000 Budget

Summary of Requirements (\$ in Thousands)

	Total Program Requirements per FY 1999 Budget	Total Program Requirements per FY 2000 Budget	Increase (+) or Decrease (-)
Ships Support Equipment	\$963,074	\$954,401	-\$8,673
Communications and Electronic Equip	1,530,802	1,629,901	+99,099
Aviation Support Equipment	245,663	243,679	-1,984
Ordnance Support Equipment	674,703	715,972	+41,269
Civil Engineering Support Equip	69,902	54,856	-15,046
Supply Support Equipment	108,905	89,537	-19,368
Personnel and Command Support Equip	65,660	74,063	+8,403
Spares and Repair Parts	279,028	246,506	-32,522
Total Fiscal Year Program	\$3,937,737	\$4,008,915	+\$90,546

Explanation by Budget Activity
(\$ in Thousands)

1. Ships Support Equipment (-\$8,673) – Net changes reflect FY 1998 Congressional adjustments (-\$8,673).
2. Communications and Electronics Equipment (+\$99,099) – Net changes reflect FY 1998 Congressional reductions (-\$61,730), Congressional increases(+\$155,206), and DoN internal realignments (+\$5,623).

Comparison of FY 1999 program requirements as reflected
in the FY 1999 Budget with FY 1999 program requirements
as shown in the FY 2000 Budget

Explanation by Budget Activity (Continued)
(\$ in Thousands)

3. Aviation Support Equipment (-\$1,984) - Changes reflect FY 1998 Congressional reductions (-\$9,551), Congressional increases(+\$18,000), and DoN offsets for higher priority programs (-\$6,465).
4. Ordnance Support Equipment (+\$41,269) - Changes reflect FY 1998 Congressional reductions (-\$7,960), Congressional increases(+\$47,800), and DoN internal realignments (+\$1,429).
5. Civil Engineering Support Equipment (-\$15,046) - Changes reflect FY 1998 Congressional reductions (-\$7,260), and DoN offsets for higher priority programs (-\$7,786) .
6. Supply Support Equipment (-\$19,368) - Changes reflect FY 1998 Congressional reductions (-\$27,417), and DoN realignments for Automated Teller Machines at Sea (+\$8,049).
7. Personnel and Command Support (+\$8,043) - Changes reflect Congressional reductions (-\$297), Congressional increases (+\$6,500), and DoN realignments for Paperless Acquisition (+\$2,200).
8. Spare and Repair Parts (-\$32,522) - Changes reflect FY 1998 Congressional reductions (-\$32,522).

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy/BA-4 Ordnance Support Equipment							P-1 ITEM NOMENCLATURE/LINE ITEM # GUN FIRE CONTROL EQUIPMENT (GFCE) - 5110					
Program Element for Code B Items:							OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												0
EQUIPMENT COST (In Millions)		A	\$9.5	\$31.1	\$5.9	\$18.6	\$47.0	\$41.2	\$49.2	\$24.4	TBD	\$226.7
SPARES COST (In Millions)			\$1.2	\$3.7	\$1.2	\$1.1	\$2.5	\$3.2	\$2.2	\$1.0	TBD	\$16.1
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p>Description: (U) This program provides for procurement of equipment, materials and Ordnance Alterations (ORDALTs) to improve combat effectiveness of and maintain logistic supportability of Gun Fire Control Systems (GFCS) installed on 65 ships (65 MK 86) and 8 shore installations (8 MK 86).</p> <p>UK009 Switchboard ORDALTs - Procures ORDALTs for GFCS MK 86 Switchboards to improve weapon and combat system data switching capability; provides concurrent changes with other ORDALTs; and provides technical documentation upgrades required by interfacing system/equipment ORDALTs.</p> <p>UK024 RMA (Reliability, Maintainability and Availability) MK 86 - Procures product Improvement ORDALTs for GFCS MK 86 to correct problems reported by fleet units; upgrades unreliable components and replaces obsolete components and parts no longer in production. Installations to be in ship classes with MK 86 configuration. MK 86 ORDALTs were procured in prior years and are being installed in blocks to reduce total installation costs.</p> <p>UK039 Night Vision Devices - Procures new Night Vision Devices (NVD) for ships and shore sights. Provides repair or replacement of NVD and NVD Test Equipment.</p> <p>UK040 AN/SPQ-9B Radar ORDALT 16666 - Procures AN/SPQ-9 improvement ORDALTS (AN/SPQ-9B Radar) to add Anti-Ship Missile Defense (ASMD) capability which increases the radar capability to detect and track low-flying, very small cross-section targets in natural and man-made clutter. Installations to be performed by AIT in the following ship classes: QTY=22 CG-47; QTY=1 Trainer; QTY=10 CVN; QTY=7 LHD; and QTY=1 DD-963 class ship.</p> <p>UK040 AN/SPQ-9B GFM - U.S. Air Force APG-68 Transmitter used in AN/SPQ-9B Radar configuration.</p> <p>UK041 AN/SPQ-9B Non-recurring Production Drawing Package - Supports AN/SPQ-9B Radar production drawings and data efforts.</p>												

P-1 SHOPPING LIST

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy/BA-4 Ordnance Support Equipment	P-1 ITEM NOMENCLATURE/LINE ITEM # GUN FIRE CONTROL EQUIPMENT (GFCE) - 5110	
<p>UK042 ORDALT Kit/Engineering Changes -Procures product improvement ORDALTs; corrects problems reported by fleet units; upgrades unreliable components and replaces obsolete components and parts no longer in production for AN/SPQ-9B Radar ORDALT 16666.</p> <p>UK045 Light-Weight (LW) Antenna ORDALT Kit -Procurement and Follow-on Testing of Lightweight Antenna ORDALT Kit.</p> <p>UK830 AN/SPQ-9B Production Support- Supports AN/SPQ-9B Radar program and contractor associated areas.</p> <p>UK5IN/UK6IN - Installation of Equipments- Provides funding to install ORDALTs, field changes and other alterations in ships (Fleet Modernization Program - FMP) and shore sites (Non-fleet Modernization Program - NON-FMP)</p>		

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS							Weapon System			DATE:				
P-5										February 1999				
APPROPRIATION/BUDGET ACTIVITY						ID Code	P-1 ITEM NOMENCLATURE / SUBHEAD							
Other Procurement, Navy/BA-4 Ordnance Support Equipmen							GUN FIRE CONTROL EQUIPMENT (GFCE) / 14UK							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000					
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>N864 SPONSOR</u>													
	EQUIPMENT													
UK009	Switchboard O/A's MK 86	A			48			47			47			
UK024	RMA MK 86				1,359			739			837			
UK039	Night Vision Devices				471			535			471			
	INSTALL													
UK5IN	Installation of Eqmt.-- FMP (RMA MK 86)							412			304			
UK6IN	Installation of Eqmt-- NON FMP (RMA MK 86)							97			16			
	<u>N864 SPONSOR TOTAL</u>				1878			1830			1675			
	<u>N865 SPONSOR</u>													
	EQUIPMENT													
UK040	AN/SPQ-9B Radar MK 86 O/A 16666	A	1	4140	4,140	3	4200	12,600			0			
UK040	GFM-Pedestal Refurb./Removal	A	1	109	109	3	125	375			0			
UK041	AN/SPQ-9B N/R Production Drawing Package				0			0			0			
UK040	GFM--APG-68 Radar Transmitter	A	1	280	280	3	445	1,335			0			
UK042	ORDALT Kit/Engineering Changes							6,858			2,483			
UK045	LW Antenna ORDALT Kit					3	1311	3,933			0			
UK800	AN/SPQ-9B O/A 16666 ILS/Test Support				0			2,200			0			
UK830	AN/SPQ-9B Production Support				2,345			1,000			1,050			
UK900	AN/SPQ-9B Consulting Services				215			214			212			
	INSTALL													
UK5IN	Installation of Eqmt.-- FMP (AN/SPQ-9B)				88	1	730	730			0			
UK5IN	Installation of LW Antenna ORDALT Kit				0			0			0			
UK6IN	Installation of Eqmt -- NON FMP (AN/SPQ-9B)				419			0	1	451	451			
	<u>N865 SPONSOR TOTAL</u>				7596			29245			4196			
TOTAL					9,474			31,075			5,871			

CLASSIFICATION:

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Other Procurement, Navy/BA-4 Ordnance Support Equipmen					GUN FIRE CONTROL EQUIPMENT (GFCE) - 5110				14UK	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR (98)										
UK040 AN/SPQ-9B Radar	1	4,140	NAVSEA	Nov-97	SS/FFP	NORDEN SYSTEMS, INC.	JUN 98	OCT 99	YES	
UK040 GFM--APG-68 Xmtr	1	280	NSWC CRANE	OPTION MAR 98	MILSTRIP	MELVILLE, NY HILL AIR FORCE ODGEN, UTAH	MAR 98	SEPT 98	YES	
UK040 GFM--Pedestal refurb.	1	109	NAVSEA	Aug 97	W R	NSWC PHD	NOV 97	APR 98	YES	
FISCAL YEAR (99)										
UK040 AN/SPQ-9B Radar	3	4,200	NAVSEA	Sep-98	SS/FFP	NORDEN SYSTEMS, INC.	JAN 99	MAY 00	YES	
UK045 LW ANTENNA O/A KIT	3	1311	NAVSEA	OPTION Sep-98	SS/FFP	NORDEN SYSTEMS, INC. MELVILLE, NY	APR 99	MAY 00	NO	DEC 98
UK040 GFM--APG-68 Xmtr	3	445	NSWC CRANE	NOV 98	MILSTRIP	HILL AIR FORCE ODGEN, UTAH	JAN 99	JUL 99	YES	
UK040 GFM--Pedestal refurb.	3	125	NAVSEA	Aug 98	W R	NSWC PHD	NOV 98	APR 99	YES	
FISCAL YEAR (00)										
UK040 AN/SPQ-9B Radar	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
UK040 GFM--APG-68 Xmtr	0	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: MK 86 GFCS Mod 9, 10, 12 TYPE MODIFICATION: N/A MODIFICATION TITLE: AN/SPQ-9B Radar O/A 16666 to MK 86 Gun Fire Control System (GFCS)

DESCRIPTION/JUSTIFICATION:
 Adds Anti-Ship Missile Defense mode; detects and tracks low-flying, extremely small radar cross-section targets in clutter.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **MS IV/II 10/94; CA 10/94; CDR 7/95; DT/OT 10/98; MS III 5/00.**

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<i>RDT&E</i>	2	39.0	0	12.4	0	8.3	0	2.7	0	0.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2	62.9
<i>PROCUREMENT</i>																								0.0
INSTALLATION KITS																								0.0
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT	0	0.0	0	0.0	0	0.0	3	14.3	0	0.0	2	9.5	9	41.3	7	33.9	8	39.2	3	15.2	7	35.0	39	188.3
EQUIPMENT NONRECURRING											1.8													1.8
ENGINEERING CHANGE ORDERS								10.8		2.5		1.9		1.4		2.7		0.2		0.8		2.5		22.9
DATA																								0.0
TRAINING EQUIPMENT			1	5.8	1	4.5																	2	10.3
SUPPORT EQUIPMENT																								0.0
PRODUCTION SUPPORT				0.0		2.3		1.0		1.1		1.1		1.1		1.1		1.0		0.9		2.7		12.3
OTHER (ILS/TEST SUPPORT)								2.2																2.2
OTHER (CSS SUPPORT)		0.5		0.2		0.23		0.2		0.2		0.2		0.2		0.2		0.2		0.2		0.6		2.9
INTERIM CONTRACTOR SUPPORT																								
INSTALL COST		0.0		0.0		0.5		0.7		0.5		1.4		1.4		1.5		6.8		5.4		14.4	41	32.4
TOTAL PROCUREMENT	0	0.5	1	6.0	1	7.6	3	29.2	0	4.2	2	15.8	9	45.3	7	39.4	8	47.3	3	22.5	7	55.3	41	273.2

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: MK 86 GFCS Mod 9, 10, 12 MODIFICATION TITLE: AN/SPQ-9B Radar O/A 16666 to MK 86 Gun Fire Control System (GFCS)

INSTALLATION INFORMATION: **ALTERATION INSTALLATION TEAM (AIT)**

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: 2 Months

PRODUCTION LEADTIME: 16 Months

CONTRACT DATES: FY 1999: NOV 1998

FY 2000: N/A

FY 2001: November 2000

DELIVERY DATE: FY 1999: MAR 2000

FY 2000: N/A

FY 2001: March 2002

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																							0	0.0	
FY 1997 EQUIPMENT							*	1	0.7														1	0.7	
FY 1998 EQUIPMENT									**	1	0.5												1	0.5	
FY 1999 EQUIPMENT											***	2	1.4	2	1.4								4	2.8	
FY 2000 EQUIPMENT																							0	0.0	
FY 2001 EQUIPMENT																2	1.5						2	1.5	
FY 2002 EQUIPMENT																	9	6.8					9	6.8	
FY 2003 EQUIPMENT																				7	5.4		7	5.4	
FY 2004 EQUIPMENT																						8	6.4	8	6.4
FY 2005 EQUIPMENT																						3	2.4	3	2.4
TO COMPLETE																						5	4.2	5	4.2

* DT/OT SHIP (DD 972)

** SHORE SITE UNIT

*** INCLUDES 1 LIGHTWEIGHT ANTENNA ORDALT KIT INSTALL TO DD-963 CLASS SHIP FOR FOT&E

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	1	0	0	0	1	0	0	1	1	0	1	1	1	0	0	1	1	0	3	3	3	0	4	3	0	0	16	41
Out	0	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	1	1	1	0	0	0	1	1	0	0	4	3	0	16	41

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: GFCS MK 86 TYPE MODIFICATION: Mods 9, 10, 12 MODIFICATION TITLE: MK86; Gun Fire Control Equipment ORDALTs

DESCRIPTION/JUSTIFICATION:
 Provides Product Capability, Safety, and Survivability with RMA Improvements.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **Continuous Improvements to GFCS MK 86**

	FY 1996 & Prio		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<u>FINANCIAL PLAN (IN MILLIONS)</u>																									
<u>RDT&E</u>																								0	0.0
<u>PROCUREMENT</u>																								0	0.0
INSTALLATION KITS	1234	15.2	0	0.0	10	0.5	12	0.7	13	0.8	25	0.9	25	0.7	25	1.0	25	1.1	25	1.1	0	0.0	1394	22.0	
INSTALLATION KITS NONRECURRING				2.0		0.9						0.7											0	3.6	
EQUIPMENT																							0	0.0	
EQUIPMENT NONRECURRING																							0	0.0	
ENGINEERING CHANGE ORDERS																							0	0.0	
DATA																							0	0.0	
TRAINING EQUIPMENT																							0	0.0	
SUPPORT EQUIPMENT																							0	0.0	
OTHER																							0	0.0	
OTHER																							0	0.0	
OTHER																							0	0.0	
INTERIM CONTRACTOR SUPPORT																							0	0.0	
INSTALL COST	1177	4.5	35	1.0	0	0.0	32	0.4	12	0.3	13	0.5	25	0.4	25	0.2	25	0.2	25	0.2	25	0.3	1394	8.1	
TOTAL PROCUREMENT		19.7		3.0		1.4		1.1		1.1		2.1		1.1		1.2		1.3		1.3		0.3	0	33.7	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: GFCS MK 86 MODIFICATION TITLE: MK86; Gun Fire Control Equipment ORDALTs

INSTALLATION INFORMATION: ALTERATION INSTALLATION TEAM (AIT)

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

DELIVERY DATE: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS	1177	4.5	35	1.0			28	0.3															1240	5.8	
FY 1997 EQUIPMENT																								0	0.0
FY 1998 EQUIPMENT							4	0.1																4	0.1
FY 1999 EQUIPMENT									12	0.3														12	0.3
FY 2000 EQUIPMENT											13	0.5												13	0.5
FY 2001 EQUIPMENT													25	0.4										25	0.4
FY 2002 EQUIPMENT															25	0.2								25	0.2
FY 2003 EQUIPMENT																	25	0.2						25	0.2
FY 2004 EQUIPMENT																			25	0.2				25	0.2
FY 2005 EQUIPMENT																					25	0.3		25	0.3
TO COMPLETE																					0	0.0		0	0.0

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Note: Prior years quantities above reflect total number of ORDALT kits installed. Beginning in FY95, ORDALTs have been procured, packaged, and installed in sets to lower overall ship unit costs.

- MK86 BASELINE ORDALTs: 13 (FY94 & Prior)
- MK86 BLOCK 1 UPGRADE ORDALTs: 4 (FY95)
- MK86 BLOCK 2 UPGRADE ORDALTs: 5 (FY96)
- MK86 RMA-1 UPGRADE ORDALTs: 3 (FY97 - FY00)
- MK86 RMA-2 UPGRADE ORDALTs: 3 (FY01- FY03)

P-3A

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: FEBRUARY 1999			
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA - 4 ORDNANCE SUPPORT EQUIPMENT Program Element for Code B Items:							P-1 ITEM NOMENCLATURE/LINE ITEM # MK 92 FIRE CONTROL SYSTEM ORDALT KIT PROCUREMENT/520800 MK 92 FIRE CONTROL SYSTEM ORDALT KIT INSTALLATION/520805 OTHER RELATED PROGRAM ELEMENTS						
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY	N/A	A		12	12	12	12	12	12	12	12	N/A	96
EQUIPMENT COST (In Millions)	N/A	A		\$0.9	\$1.0	0*	0*	0*	0*	0*	0*	0*	\$8.5
SPARES COST (In Millions)	N/A	A		\$2.5	\$1.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	N/A	\$8.1
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>Fleet Support Ordalts - Provides hardware, and related materials to modify Fire Control Systems Mk 92 Mod 2/6 and Guided Missile Launching System MK 13 installed in 23 FFG 7 Class Ships. Modifications correct safety, environmental, RMA, cost of ownership or obsolescence deficiencies to maintain the readiness of the AAW/ASUW Weapons System mission for self and area defense against hostile air and surface threats, including anti-ship missile threats. Hardware is procured as Ordnance Alterations (ORDALTs). Installation of Ordalts will be accomplished by either Alteration Installation Teams (AIT) or in conjunction with routine repair actions planned in the fiscal years following procurement.</p> <p>This program was consolidated with P-1 #166 in FY 2000.</p>													

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CLASSIFICATION:

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**BUDGET ITEM JUSTIFICATION SHEET
P-40**

DATE:

February 1999

APPROPRIATION/BUDGET ACTIVITY

OTHER PROCUREMENT, NAVY/BA-4:Ordnance Support Equipment

P-1 ITEM NOMENCLATURE

HARPOON Support Equipment (J4U0)

Program Element for Code B Items:

Other Related Program Elements

	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												
COST (In Millions)	365.7	A	\$0.2	\$0.0	\$366.0							

The HARPOON Weapon System (HWS) provides a ship and aircraft-launched all-weather, over-the-horizon, anti-ship cruise missile system effective against enemy destroyers, cruisers, surfaced submarines, patrol craft and other enemy shipping (e.g., merchant, surveillance, etc.). The missile uses altitude reference mid-course guidance with an active radar seeker for target acquisition and terminal guidance. The following platforms are configured to provide HARPOON command and control functions to launch the HARPOON missile:

Ship Launch Platforms: DD-963, CGN, FFG-7, CG-47, DDG-51 and DDG-993
Air Launch Platforms: P-3, A-6, F/A-18 and S-3

OPN funds are used for procurement of items peculiar to ship HARPOON Command and Launch Control Systems. Funds for procurement of air launch platforms, new construction and the missile are provided by other appropriations (APN/SCN/WPN). OPN procurement is structured to be compatible with projected Ordnance Alteration (ORDALT) installation schedules and to optimize fleet introduction of HARPOON weapon improvements.

The HWS was granted Approval for Service Use (ASU) per CNO ltr Ser 354H/C 394280 of 19 February 1981. The HARPOON Ship Command and Launch Control System (HSCLCS) AN/SWG-1A(V) was granted Approval for Full Rate Production (AFRP) per ASN(S&L) memo of 12 May 1989.

The OPN funding will support a series of ORDALTS to improve HARPOON readiness in the fleet. Computer program improvements to the HSCLCS AN/SWG-1A(V) will correct deficiencies identified in trouble reports, incorporate operational capabilities recommended by the fleet and further enhance operational safety and reliability and provide for HARPOON Block II capabilities.

Funding in FY 1997 and FY 1998 provide for the installation of Shipboard HSCLCS ORDALT Kits procured in previous fiscal years. These Shipboard ORDALTS will be installed as part of the Fleet Modernization Program (FMP).

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5				Weapon System						DATE: February 1999						
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: Ordnance Support Equipment				ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD HARPOON SUPPORT EQUIPMENT (J4U0)											
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS													
			Prior Years	FY 1998			FY 1999			FY 2000						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
U0004	ORDALTS HSCLCS-1A Computer Program Upgrade ORDALT Kits Object Oriented Analysis (OOA) and Design (OOD) and Software Coding and Testing Production Support	A	104,428 (57,559) (29,650) (17,219)			0				0	0	0	0			
U0910	Installation of Equipment (FMP) Various 1/		4,408 256,928			238			0		0	0	0			
			365,764			238			0			0				

1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY95 and beyond.

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION** Date: February 1999

MODELS OF SYSTEM AFFECTED: CGs, CGNs, DDs, DDGs,FFGs TYPE MODIFICATION: OPERATIONAL MODIFICATION TITLE: WEAPON SYSTEM ORDALTS

DESCRIPTION/JUSTIFICATION:

Weapon System ORDALT Kits include Launcher Relay Assembly (LRA) Cable Corrosion, HSCLCS-1A Embedded Trainer (HET), HSCLCS-1A Selective Engagement, HSCLCS-1A Graphic Display Unit/Graphic Data Processor (GDU/GDP) Enhancement, HSCLCS-1A ORDALTS, HARPOON Guided Missile Simulator (HGMS) and HOTTs Retrofit ORDALTS will enhance fleet capabilities, readiness, correct system deficiencies and further enhance operational safety and reliability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																								0	0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS	1071	57.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1071	57.6	
INSTALLATION KITS - UNIT COST		0.063																							0.063
INSTALLATION KITS NONRECURRING		29.6																							29.6
EQUIPMENT																									0.0
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER PRODUCTION SUPPORT		17.2																							17.2
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
INSTALL COST		4.4	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	
TOTAL PROCUREMENT		108.8	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1071.0	109.1	

UNCLASSIFIED

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET P-40	DATE: February 1999
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APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY (OPN) BA-4 ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE TARTAR SUPPORT EQUIPMENT LI 5233
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	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
QUANTITY								
COST (In Millions)	\$3.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

*
 FY00 and out budgeted in the P-1 Engagement Systems Support #151

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CLASSIFICATION:

UNCLASSIFIED

**BUDGET ITEM JUSTIFICATION SHEET
P-40**

DATE:
February 1999

APPROPRIATION/BUDGET ACTIVITY
OTHER PROCUREMENT, NAVY (OPN)
BA-4 ORDNANCE SUPPORT EQUIPMENT

P-1 ITEM NOMENCLATURE
POINT DEFENSE SUPPORT EQUIPMENT LI 5234

	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005
QUANTITY								
COST (In Millions)	\$0.0*	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

*
FY97 and beyond budgeted in the NATO Seasparrow BLI 523700 (P-1 Item #149).

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: FEB 99					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BA 4: Ordnance Support Equipment							P-1 ITEM NOMENCLATURE/LINE ITEM # NATO SEASPARROW / 523700					
Program Element for Code B Items: N/A							OTHER RELATED PROGRM ELEMENTS					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												0
EQUIPMENT COST (In Millions)			\$12.4	\$7.3	\$0.5	\$17.7	\$49.8	\$44.7	\$60.3	\$29.4		\$222.1
SPARES COST (In Millions)			\$0.5	\$0.4	\$0.3	\$0.5	\$0.6	\$4.5	\$1.2	\$0.4		\$5.8
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p>NATO SEASPARROW Surface Missile System (NSSMS) NATO SEASPARROW is a Self Defense AAW Shipboard Missile System.</p> <p>Primary operations consist of:</p> <ul style="list-style-type: none"> - Acquiring targets from external or internal designations - Establishing track data for Engageability Determination and Launcher/Missile Control - Target Illumination for Missile Guidance - Missile Firing - Kill/Survive Assessment <p>Provides fully automatic operation with provisions for Operator Intervention or Override from the time of Target Designation to Missile Away. The NSSMS consists of a Fire Control System comprised of Directors; a General Purpose Digital Computer; Signal Data Converters; Transmitter Group; Operating Consoles, and an 8 Cell Launcher, which employs the surface launch variant of the Sparrow Missile. The Surface Launch Version (RIM-7) uses a Radar Homing Guidance System, with Target Illumination provided by the shipboard MK91 System Radar Directors.</p> <p>When NSSMS is combined with the MK23 Target Acquisition System (TAS), they become the AN/SWY-1 Self Defense Surface Missile System (SDSMS) for the following U.S. Navy Ships: AOE/AORs, CV/CVNs, DD963s, LHDs, Self Defense Test Ship, and shore based facilities.</p> <p>The NSSMS is a NATO Cooperative Project with the participating governments of Australia, Belgium, Canada, Denmark, Germany, Greece, Italy, Norway, The Netherlands, Portugal, Spain, Turkiye and the United States. The NSSMS and associated systems of the Cooperative Project were developed, produced and are supported under an International Memorandum of Understanding (MOU).</p> <p>The NATO Cooperative Project is currently in the Engineering, Manufacturing and Development Phase (EMD) for the Evolved SEASPARROW Missile (ESSM) and associated NSSMS/MK91 Fire Control modifications.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET		DATE:
P-40 CONTINUATION		FEB 99
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE/LINE ITEM #	
OTHER PROCUREMENT, NAVY / BA 4: Ordnance Support Equipment	NATO SEASPARROW / 523700	
<p>The FY98 and prior year provides funding for minor engineering changes/ordnance alterations (ORDALTs) (software/hardware) procured in response to the fleet concerns of the combat readiness (including safety and reliability) of the system. End of system production has mandated reuse of systems as well as ensuring systems in the Fleet have required changes for reliability and performance improvements. The ORDALTs procured under this line in FY98 will be installed in NSSMS on AOE/AORs, CV/CVNs, DD 963 and LHD Class ships. Installation will be accomplished in a regular overhaul, during restricted availability or by a Tiger Team. Naval Surface Warfare Center, Port Hueneme Division functions as the In-Service Engineering Agent (ISEA) and support agent. FY98 completes the Production Improvement non-recurring effort for the transmitter. Additional FY 1998 funding was provided for the Charged Couple Device (CCD) ORDALT effort to upgrade the Low Light Level Television (LLLTV) Units.</p> <p>The FY99 Budget provides for the U.S. share of consortium support and initial procurement of the Solid State transmitter upgrade. This upgrade will replace the current Klystron Vacuum Tubes resulting in lower cost of ownership, improved reliability, reduced system downtime, lower associated maintenance for parts replacement.</p> <p>The FY 00 provides for the U.S. share of consortium effort.</p>		

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System			DATE: FEB 99					
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy / BA 4: Ordnance Support Equipment						ID Code A	P-1 ITEM NOMENCLATURE/SUBHEAD NATO SEASPARROW / 14US/24US							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000					
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST [2]	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
US003	NSSMS IMPROVEMENTS				11,353			6,693			492			
US004	ESSM/MK91 SYSTEM MODIFICATION													
US900	NSSMS - CSS			375			344			0				
US5IN	<u>EQUIPMENT INSTALLATION (FMP)</u>			657			267							
	TOTAL				12,385			7,304			492			

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE FEB 99		
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy / BA 4: Ordnance Support Equipment					C. P-1 ITEM NOMENCLATURE NATO SEASPARROW				SUBHEAD 14US	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
US 003/ FY98 CCD ORDALT for LLLTV	15	320	NAVSEA	Feb-98	Firm Fixed Price	Ball Aerospace	Jun-98	Oct-99	YES	
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: NATO SEASPARROW Surface Missile Systems TYPE MODIFICATION: Reliability & Safety MODIFICATION TITLE: Various

DESCRIPTION/JUSTIFICATION:

The ORDALT line provides for engineering changes (software/hardware) procured in response to fleet concerns. The non-recurring costs are associated with the Solid State transmitter upgrade. - Uses modular Solid State PA design; - Replaces the current Klystron Vacuum Tubes resulting in lower cost of ownership, improved reliability, reduced system downtime, lower associated maintenance for parts replacement. Product Improvement (NRE) effort associated with the transmitter upgrade will complete in FY98, transmitter ORDALT production commences in FY99.
 FY98 provides for the CCD ORDALT to LLTV to enable efficient operation of the LLLTV systems without obsolescence of the CCD.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Complete

	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
<u>RDT&E</u>																						0.0	0.0
<u>PROCUREMENT</u>																							0.0
INSTALLATION KITS NONRECURRING																							0.0
EQUIPMENT 1]		4.0		10.2		6.6		0.5		2.0		4.1		3.9		4.3		4.3		Cont		39.9	
EQUIPMENT NONRECURRING		5.1		1.1																		6.2	
ECPs/ORDALTs																							0.0
DATA																							0.0
TRAINING EQUIPMENT																							0.0
SUPPORT EQUIPMENT																							0.0
OTHER - PRODUCTION SUPPORT																							0.0
OTHER - CSS				0.4		0.4																	0.8
OTHER																							0.0
INTERIM CONTRACTOR SUPPORT																							0.0
PROCUREMENT COST	0.00	9.1		11.7		7.0		0.5		2.0		4.1		3.9		4.3		4.3				46.9	
INSTALL COST		0.0		0.7		0.3		0.0		0.0		0.0		0.0		0.0		0.0				1.0	
TOTAL PROGRAM COST	0.00	9.1		12.4	0.0	7.3		0.5		2.0		4.1		3.9		4.3		4.3				47.9	

1] Includes hardware & production support costs, excludes CSS.

CLASSIFICATION: UNCLASSIFIED

P3A INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: NATO SEASPARROW Surface Missile Systems TYPE MODIFICATION: Reliability & Safety MODIFICATION TITLE: MK91 REARC

DESCRIPTION/JUSTIFICATION:
 The MK 91 NATO Seasparrow Rearchitecture Program will integrate the NSSMS into the ISDS architecture to provide an additional layer of ship missile defense. The upgrade will eliminate the analog point to point architecture and other deficiencies resident in the existing MK 57 NSSMS, as well as allow for full exploitation of ESSM. In addition to reductions in manning realized by RNSSMS, the Solid State Transmitter Ordalt and replacement for the SDP will reduce NSSMS Cost of Ownership for the fleet.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Complete

	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
<i>RD&E</i>																							0.0
<i>PROCUREMENT</i>																							
																						0	0.0
INSTALLATION KITS NONRECURRING																							0.0
EQUIPMENT 1]								2*	15.6	5	38.3	4	31.3	4	41.6	0**	13.7		cont		15	143.2	
EQUIPMENT NONRECURRING											2.1											2.1	
ECPs/ORDALts								0.2		1.2		1.3		1.3		1.3		1.3		cont		5.3	
DATA																							0.0
TRAINING EQUIPMENT																							0.0
SUPPORT EQUIPMENT																							0.0
OTHER - PRODUCTION SUPPORT																							0.0
OTHER - CSS											0.4		0.4		0.4		0.4		0.4		cont		1.6
OTHER																							0.0
INTERIM CONTRACTOR SUPPORT																							0.0
PROCUREMENT COST	0.00	0.0		0.0		0.0		0.0		15.8		42.0		33.0		43.3		15.4		0.0		149.5	
INSTALL COST		0.0					0.0		0.0		3.7		7.9		12.7		9.7		9.8			43.8	
TOTAL PROGRAM COST	0.00	0.0		0.0	0.0	0.0		0.0		15.8		45.7		40.9		56.0		25.1		9.8		193.3	

1] Includes hardware & production support costs, excludes CSS.
 * 2 Ship Sets - 1 CVN and 1 LHD
 **Self Defense Launching System (SDLS)

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: NATO SEASPARROW Surface Msl Sys MODIFICATION TITLE: MK91 REARC

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: ROH, SRA, PIA

ADMINISTRATIVE LEADTIME: 9 Months PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 1999: 0 FY 2000: 0 FY 2001: 2 FY 2002: 5

DELIVERY DATE: FY 1999: 0 FY 2000: 0 FY 2001: 0 FY 2002: 0

CONTRACT DATES: FY 2003: 4 FY 2004: 4 FY 2005: 0

DELIVERY DATE: FY 2003: 2 FY 2004: 5 FY 2005: 4

(\$ in Millions)

Cost:	Prior Years		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																							
FY 1997 EQUIPMENT																							
FY 1998 EQUIPMENT																							
FY 1999 EQUIPMENT																						0	0.0
FY 2000 EQUIPMENT											3.7											0	3.7
FY 2001 EQUIPMENT													2	7.9								2	7.9
FY 2002 EQUIPMENT															5	12.7						5	12.7
FY 2003 EQUIPMENT																	4	9.7				4	9.7
FY 2004 EQUIPMENT																			4	9.8		4	9.8
FY 2005 EQUIPMENT																							
TO COMPLETE																						15	43.8

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 2000 & Prior	FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				TC	TOTAL					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4											
In	0	2	0	0	0	1	1	2	1	1	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Out	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	3	0	2	2	0	0	2	2	0	0	2	2	0	0		

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TIME PHASED REQUIREMENTS SCHEDULE (SUPPLEMENT SHEET-INSTALLATION DATA) P-23A								P-1 ITEM NOMENCLATURE/PROJECT UNIT MK 91 REARCHITECTURE (SSTX, SDP, & REARCH)								DATE February 1999			
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy / BA 4: NATO SEASPARROW								Installing Agent Applicable Shipyard supported by NSWC PHD and Raytheon											
1ST QTR		2ND QTR		3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR					
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY				
FY 2003								FY 2004											
O P CV 67 N	1	LHD 1	1							LHD3 CVN 65	1 1			CVN 71 LHD 5 LHD 6*	1 1 1				
S C N																			
FY 2005								FY 2005											
O P N		CVN 74 CVN 75	1 1	LHD 2 LHD 4	1 1														
S C N																			

* SSTX INSTALLATION ONLY

P-1 SHOPPING LIST

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET										DATE: February 1999			
P-40													
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BA- 4 RAM GMLS								P-1 ITEM NOMENCLATURE/LINE ITEM # Rolling Airframe Missile (RAM) 5238					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY	N/A	A		8	8	3	3	4	4	6	12	N/A	48
EQUIPMENT COST (In Millions)	N/A	A		\$66.2	\$59.5	\$39.3	\$43.0	\$36.1	\$28.0	\$39.4	\$69.9	N/A	\$381.3
SPARES COST (In Millions)	N/A	A		\$1.6	\$2.0	\$1.6	\$0.5	\$0.8	\$0.6	\$0.4	\$0.9	N/A	\$8.4
PROGRAM DESCRIPTION/JUSTIFICATION:													
Rolling Airframe Missile (RAM) - MK49 Guided Missile Launching System (GMLS)													
<p>RAM is a NATO cooperative project with Germany. The RAM production MOU, approved by the U.S. and Germany on 3 August 1987, requires co-production of the RAM Guided Missile Launching System. In August 1992, General Dynamics (ADSD) was acquired by Hughes Aircraft Company. In January, 1998, Raytheon Systems Company acquired Hughes Aircraft Company.</p> <p>The RAM is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The MK-31 Guided Missile Weapons System (GMWS) is comprised of a MK-44 Guided Missile Round Pack (GMRP) and the MK-49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms ranging from large USN amphibious assault ships to S-143 type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence. An ECP for reliability and maintainability improvement to the below-deck equipment began in FY97 and will produce an 11-round trainer launcher.</p> <p>Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987, and operational tests were completed in April 1990. Approval for Full Rate Production was granted 6 May 1993. The total RAM GMLS procurement program is 198 launchers (116 OPN including 1 trainer, 39 SCN, and 43 German systems). 100 Launchers (48 U.S. OPN, 9 U.S. SCN and 43 German) were procured in FY 1998 and prior years under joint US/German production contracts. Of the 98 remaining launchers, 40 OPN and 30 SCN launchers are budgeted in the years FY99 through FY05. 28 OPN (11-round) units are planned beyond the FYDP. To complete the planned US Navy's buy of 21-round launchers, a five year multi-year procurement is planned to commence in FY 00, providing an estimated hardware cost avoidance of 16% over annual procurements.</p>													

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999																																																
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-(4): (RAM GMLS)	P-1 ITEM NOMENCLATURE/LINE ITEM # <i>Rolling Airframe Missile (RAM) 5238</i>																																																	
<p>RAM is installed on or planned for installation on the following ship classes:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>CLASS</u></th> <th style="text-align: center;"><u>SHIPS</u></th> <th style="text-align: center;"><u>LAUNCHERS</u></th> </tr> </thead> <tbody> <tr> <td>LHA (OPN)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">10</td> </tr> <tr> <td>LSD (OPN)</td> <td style="text-align: center;">11</td> <td style="text-align: center;">23 (LSD-52 (1 OPN & 1 SCN))</td> </tr> <tr> <td>DD 963 (OPN)</td> <td style="text-align: center;">12</td> <td style="text-align: center;">12</td> </tr> <tr> <td>LHD (OPN)</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> </tr> <tr> <td>CV (OPN)</td> <td style="text-align: center;">2</td> <td style="text-align: center;">4</td> </tr> <tr> <td>CVN (OPN)</td> <td style="text-align: center;">7</td> <td style="text-align: center;">14</td> </tr> <tr> <td>CG 52 (OPN)</td> <td style="text-align: center;">22</td> <td style="text-align: center;">44</td> </tr> <tr> <td>TRAINER (OPN)</td> <td style="text-align: center;">—</td> <td style="text-align: center;">1</td> </tr> <tr> <td style="padding-left: 20px;">OPN TOTAL</td> <td style="text-align: center;">63</td> <td style="text-align: center;">116</td> </tr> <tr> <td colspan="3"> </td> </tr> <tr> <td>LSD (SCN)</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1 (LSD-52 (1 OPN & 1 SCN))</td> </tr> <tr> <td>LHD (SCN)</td> <td style="text-align: center;">3</td> <td style="text-align: center;">6</td> </tr> <tr> <td>CVN (SCN)</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> </tr> <tr> <td>LPD 17 (SCN)</td> <td style="text-align: center;">12</td> <td style="text-align: center;">24</td> </tr> <tr> <td style="padding-left: 20px;">SCN TOTAL</td> <td style="text-align: center;">20</td> <td style="text-align: center;">39</td> </tr> </tbody> </table>			<u>CLASS</u>	<u>SHIPS</u>	<u>LAUNCHERS</u>	LHA (OPN)	5	10	LSD (OPN)	11	23 (LSD-52 (1 OPN & 1 SCN))	DD 963 (OPN)	12	12	LHD (OPN)	4	8	CV (OPN)	2	4	CVN (OPN)	7	14	CG 52 (OPN)	22	44	TRAINER (OPN)	—	1	OPN TOTAL	63	116				LSD (SCN)	1	1 (LSD-52 (1 OPN & 1 SCN))	LHD (SCN)	3	6	CVN (SCN)	4	8	LPD 17 (SCN)	12	24	SCN TOTAL	20	39
<u>CLASS</u>	<u>SHIPS</u>	<u>LAUNCHERS</u>																																																
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SCN TOTAL	20	39																																																
<p>The RAM GMLS installations are performed during overhauls or regular shipyard availability. The NSWC Port Hueneme provides installation oversight support as the ISEA for the RAM system. RAM will be installed on LHA, LSD, LHD, DD963, CV/CVN, LPD, and CG ship classes</p>																																																		
DD Form 2454, JUN 86	P-1 SHOPPING LIST ITEM NO. 150 PAGE NO. 2	CLASSIFICATION: <h2 style="margin: 0;">UNCLASSIFIED</h2>																																																

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE:			
P-5									Feb-99			
APPROPRIATION/BUDGET ACTIVITY						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD					
Other Procurement, Navy							Rolling Airframe Missile (RAM) 5238					14UR
BA-(4): (RAM GMLS)												
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS									
			FY 1998			FY 1999			FY 2000			
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	
UR006	Multi-year RAM MK-49 GMLS	A	7	4,499	31,492	8	4,753	38,022	3	4,110	12,331	
UR006	Multi-year RAM Economic Order											
	Quantity Material	A			0			0			7,633	
UR006	RAM 11-ROUND GMLS	A	1	5,401	5,401	0	0	0	0	0	0	
UR006	RAM ECPs	A			5,587			2,831			2,957	
UR006	RAM GMLS ORDALTS	A	4	700	2,800	4	708	2,832	2	701	1,402	
UR777	RAM ENGINEER SERVICES (Contractor)	A			7,998			4,089			3,106	
UR007	RAM GMLS PRODUCTION SUPPORT	A			3,214			4,281			4,362	
UR900	RAM - CSS	A			1,052			940			1,010	
UR006	RAM GMLS ORDALT INSTALL (NON-FMP)	A			96			322			306	
UR5IN	RAM GMLS INSTALL (FMP)	A			8,609			6,168			6,188	
TOTAL PROGRAM					66,249		59,485			39,295		

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P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-(4): (RAM GMLS)					C. P-1 ITEM NOMENCLATURE Rolling Airframe Missile (RAM) 5238				February 1999	
									SUBHEAD 14UR	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
UR006 FISCAL YEAR (98) RAM GMLS (MK-49)	7	4,499	NAVSEA	4/97	SS/FP	Hughes Missile System Tucson, Arizona	11/97	8/99	YES	6/99
RAM 11-Round	1	5,401	NAVSEA	6/97	SS/CPIF		2/98	11/99	NO	
UR006 FISCAL YEAR (99) RAM GMLS (MK-49)	8	4,753	NAVSEA	4/98	SS/FP	Raytheon Systems, Tucson, AZ	12/98	9/00	YES	
UR006 FISCAL YEAR (00) RAM GMLS (MK-49)	3	4,110	NAVSEA	4/99	SS/FP	Raytheon Systems, Tucson, AZ	11/99	8/01	YES	
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION** February 1999

MODELS OF SYSTEM AFFECTED: ROLLING AIRFRAME MISSILE (RAM) TYPE MODIFICATION: MK-49 GMLS MODIFICATION TITLE: _____

DESCRIPTION/JUSTIFICATION:

The Rolling Airframe Missile is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The system (MK-31 GMWS), comprises an MK-44 Guided Missile Round Pack (GMRP) and the MK-49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms, ranging from large USN amphibious assault ships to S-143-type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987 and Operational Tests were completed in April 1990. Approval for Rate Production was granted 6 May 1993.**

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		IC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT	36	181.7	5	23.5	8	36.9	8	38.0	3	12.3	###	12.0	4	16.6	4	17.2	6	25.1	12	40.7	17	135.5	116	539.5	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS		8.9		6.0		5.6		2.8		3.0		0.6		1.0		0.1		1.4		0.6		3.6		33.6	
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
ENGINEERING SERVICES (Contractor)		7.3		1.4		8.0		4.1		3.1		3.3		3.3		3.4		3.6		3.7		7.7		48.9	
PRODUCTION SUPPORT		18.8		3.3		3.2		4.3		4.4		4.5		4.5		4.6		4.9		5.0		10.3		67.8	
OTHER (ECONOMIC ORDER QUANTITY)										7.6		12.0		-5.9		-6.0		-7.7							
INTERIM CONTRACTOR SUPPORT		3.8		0.4		1.1		0.9		1.0		1.0		1.0		1.1		1.1		1.0		3.1		15.5	
PROCUREMENT COST		220.5		34.6		54.7		50.2		31.4		33.4		20.6		20.3		28.3		51.1		160.2		705.3	
INSTALL COST	19	20.4	10	10.1	7	8.6	5	6.2	5	6.2	9	#REF!	3	4.3	4	6.7	4	9.3	4	8.8	45	67.5	115	#REF!	
TOTAL PROCUREMENT		240.9		44.7		63.3		56.4		37.6		#REF!		24.9		27.0		37.6		59.9		227.7		#REF!	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: ROLLING AIRFRAME MISSILE (RAM) MODIFICATION TITLE: MK-49 GMLS

February 1999

INSTALLATION INFORMATION:
 METHOD OF IMPLEMENTATION: SHIPYARD
 ADMINISTRATIVE LEADTIME: 7 Months
 CONTRACT DATES: FY 1999: NOV 98
 DELIVERY DATE: FY 1999: AUG 00

PRODUCTION LEADTIME: 21 Months
 FY 2000: NOV 99
 FY 2000: AUG 01

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	18	20.3	10	8.7	6	8.2	0	0.0															34	37.2
FY 1997 EQUIPMENT							5	6.2	0	0.0													5	6.2
FY 1998 EQUIPMENT	0	0	0	0	1	1.7	0	0	5	6.3	1	1.4	0	0	1	0.6	0	0	0	0	0	0	8	6.9
FY 1999 EQUIPMENT	0	0	0	0	0	0	0	0	0	0	8	8.2	0	0	0	0	0	0	0	0	0	0	8	8.2
FY 2000 EQUIPMENT	0	0	0	0	0	0	0	0	0	0	0	0	3	4.2	0	0	0	0	0	0	0	0	3	4.2
FY 2001 EQUIPMENT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5.6	0	0	0	0	0	0	3	5.6
FY 2002 EQUIPMENT																	4	8.5					4	8.5
FY 2003 EQUIPMENT																			4	7.5			4	7.5
FY 2004 EQUIPMENT																					6	9.0	6	9
FY 2005 EQUIPMENT																					12	18.0	12	18.0
TO COMPLETE																					28	42.0	28	42.0

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				IC	TOTAL		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
In	35	1	1	3	0	0	3	2	0	3	4	2	0	0	2	1	0	2	2	0	0	0	2	0	2	0	2	0	0	4	0	46	115
Out	33	2	1	1	3	0	0	3	2	0	3	4	2	0	0	2	1	0	0	2	0	0	2	0	2	0	0	4	0	46	115		

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION** February 1999

MODELS OF SYSTEM AFFECTED: ROLLING AIRFRAME MISSILE (RAM) TYPE MODIFICATION: MK-49 GMLS MODIFICATION TITLE: ORDALTS

DESCRIPTION/JUSTIFICATION:

The Rolling Airframe Missile is a lightweight, quick-reaction, high firepower missile system designed to provide antiship missile defense. The system (MK-31 GMWS), comprises an MK-44 Guided Missile Round Pack (GMRP) and the MK-49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms, ranging from large USN amphibious assault ships to S-143-type German patrol boats. This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control channel dependence. This ordalt enables the GMLS to launch either the Block 0 or the Block 1 IRMU Missile.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **Full-Scale Engineering Development (FSED) began in 1979. Milestone IIIA Approval for Limited Production (ALP) was granted 27 April 1987 and Operational Tests were completed in April 1990. Approval for Rate Production was granted 6 May 1993.**

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT	2	1.4	0	0.0	4	2.8	4	2.8	2	1.4	0	0.0	16	11.2	0	0.0	2	1.8	14	9.8	24	19.8	68	51.0	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
ENGINEERING SERVICES (Contractor)																									0.0
PRODUCTION SUPPORT																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST	2	1.4	0	0.0	4	2.8	4	2.8	2	1.4	0	0.0	16	11.2	0	0.0	2	1.8	14	9.8	24	19.8	68	51.0	
INSTALL COST					2	0.1	4	0.3	4	0.3	2	0.2	0	0.0	16	1.4	0	0.0	2	0.2	38	3.4	68	5.9	
TOTAL PROGRAM		1.4		0.0		2.9		3.1		1.7		0.2		11.2		1.4		1.8		10.0		23.2		56.9	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

February 1999

MODELS OF SYSTEMS AFFECTED: ROLLING AIRFRAME MISSILE (RAM) MODIFICATION TITLE: MK-49 GMLS - ORDALTS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: SHIPYARD

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 12 -18 Months

CONTRACT DATES: FY 1999: DEC 99

FY 2000: DEC 00

DELIVERY DATE: FY 1999: JUN 01

FY 2000: JUN 02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS	0	0.0	0	0.0	2	0.1																	2	0.1	
FY 1997 EQUIPMENT							0	0.0	0	0													0	0.0	
FY 1998 EQUIPMENT							4	0.3															4	0.3	
FY 1999 EQUIPMENT									4	0.3													4	0.3	
FY 2000 EQUIPMENT											2	0.2											2	0.2	
FY 2001 EQUIPMENT													0	0.0									0	0.0	
FY 2002 EQUIPMENT															16	1.0							16	1.0	
FY 2003 EQUIPMENT																	0	0.0					0	0.0	
FY 2004 EQUIPMENT																			2	0.2			2	0.2	
FY 2005 EQUIPMENT																						14	1.3	14	1.3
TO COMPLETE																						24		24	1.9

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	2	0	2	2	0	0	2	2	0	0	2	0	0	0	4	4	4	4	0	0	0	0	0	0	0	0	2	0	0	0	38	68
Out	2	0	2	2	0	0	2	2	0	0	2	0	0	0	4	4	4	4	0	0	0	0	0	0	0	2	0	0	0	38	68	

P-3A

CLASSIFICATION:

UNCLASSIFIED

TIME PHASED REQUIREMENTS SCHEDULE (SUPPLEMENT SHEET-INSTALLATION DATA) P-23A								P-1 ITEM NOMENCLATURE/PROJECT UNIT Rolling Airframe Missile (RAM) 5238								DATE February 1999	
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-(4): (RAM GMLS)								Installing Agent N/A									
1ST QTR		2ND QTR		3RD QTR		4TH QTR		1ST QTR		2ND QTR		3RD QTR		4TH QTR			
E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY	E.I./L	QTY		
FY 1998								FY 1999									
LHD-4 DD-982	(2) (1)			LSD-45	(2)	LSD-51	(2)	LSD 52	(1)	DD-997	(1)	LSD-46 DD-978	(2) (1)				
FY 2000																	
		LSD-50 DD-991	(2) (1)	LSD-41	(2)												

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

Exhibit MYP-1, Multiyear Procurement CriteriaProgram: MK 49 RAM GUIDED MISSILE LAUNCHING SYSTEM (GMLS)

1. Multiyear Procurement Description: The FY00 RAM GMLS Multiyear procurement will procure 47 Block 1, 21-round RAM launchers in FY00-04 for installation in FY02-06. This procurement will be the US Navy's buy-out of the 21-round, Block 1 RAM launcher and will include 17 OPN and 30 SCN funded systems. Future procurements will be of the 11-round launcher variant.
2. Benefit to the Government.
 - a. Savings and Cost Avoidance: The total program cost avoidance expected from this multiyear procurement over annual buys in FY00 through FY04 is \$19,931,000 or 10% with projected contract savings of \$14,262,000 or 16%. These savings are attributable to 1) the procurement of Economic Order Quantity (EOQ) of material for the 47 systems over the first two years of the contract; 2) the manufacturer's more economic production run by producing and delivering the systems over a two year shorter time period; and 3) the Government's funding of Engineering and Production Support efforts over the shorter production period.
 - b. Impact on Industrial Base: A positive, short term impact on the industrial base at the vendor level is anticipated due to the EOQ of material and a stable production requirement over the life of the contract for 47 systems. This stable requirement permits increased competition at the vendor level and justifies manufacturing investments in production capabilities to obtain an economic production run of known quantities. No negative impact is anticipated due to the program transitioning to an 11-round launcher.
3. Stability of Requirement. The 47-system buy is the total planned US Navy requirement for all ship classes receiving the RAM 21-round launcher. No other Navy Ship Self Defense System will be available during this time frame to meet or replace the RAM mission in force protection.
4. Stability of Funding. The multiyear procurement includes both OPN and SCN funded launchers. Adjustments have been made in the FY00 OPN budget submission to fully support execution of the multiyear contract.
5. Stable Configuration. The RAM Block 1 GMLS 21-round launching system is an ECP modified Block 0 launcher capable of firing either Block 0 or Block 1 missiles. The two systems are 100% mechanically common with necessary below deck electronics changes to accommodate the mixed load capability, reduce parts obsolescence, and introduce newer technology (VMEs replace SEMs) for improved reliability and maintainability. Two Block 0 systems have already been upgraded via ORDALT kits to the Block 1 configuration; they have been installed on LSD-44 for TECHEVAL/OPEVAL firings. A procurement of 8 Block 1 systems is planned for FY99. Commencing in FY94, through FY98, production contracts have been awarded for 48 Block 0 systems. When combined with the US and German initial system buy, that constitutes a total procurement of 99 GMLS 21-round systems with only minor changes in baseline configuration.

6. Degree of Cost Confidence. A very high degree of confidence exists in the projected multiyear and annual cost estimates utilized for this evaluation. The RAM 21-round launcher has a stable design, an eight year history of system procurements, a recently negotiated FY98 procurement and a NAVSEA 017 cost analysis verifying the cost estimating methods employed.

7. Degree of Confidence in Contractor Capability. RAM is a NATO cooperative project between the US and Germany. Program direction is provided by the Block 0 Production Memorandum of Understanding signed by the two countries in 1987, which identified co-production of the RAM launching system. Sole source contracts have been awarded to US/GE industry for launcher co-production since 1990. Raytheon Systems Company has been the US prime contractor and RAMSys GmbH the German subcontractor with a stable workshare since 1994. There is a very high degree of confidence in this production arrangement and the contractor's ability to successfully complete the proposed multiyear procurement.

8. Risk Factors.

<u>Category</u>	<u>Risk</u>	<u>Explanation</u>
Requirement Stability	LOW	See above
Funding Stability	LOW	See above
Configuration Stability	LOW	See above
Cost Confidence	LOW	See above

9. Multiyear Summary.

	<u>ANNUAL CONTRACTS</u>	<u>MYP ALTERNATE</u>
Quantity (OPN Funded only)	17	17
Total Contract Price	86,874,000	72,612,000
Cancellation Ceiling	0	0
\$ Cost Avoidance Over Annual	0	14,262,000
% Cost Avoidance Over Annual	0%	16%
Total Program Funding	194,136,000	173,742,000
\$ Cost Avoidance Over Annual	0	19,931,000
% Cost Avoidance Over Annual	0%	10%
Present Value	76,479,000	66,374,000
\$ Cost Avoidance Over Annual	0	10,105,000
% Cost Avoidance Over Annual	0%	13%

Exhibit MYP-2, Total Program Funding Plan			Date February-99					
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No BA-4 Other Procurement, Navy			P-1 Line Item Nomenclature Rolling Airframe Missile GMLS					
	Budget Year 1	Budget Year 2	BY 2+1	BY 2+2	BY 2+3	BY 2+4	BY 2+5	Total
Annual Procurement								
Proc Qty	3	2	4	4	4	0	0	17
Gross Cost	33,969	29,270	46,224	38,411	44,024	0	0	191,898
Less PY Adv Proc								
Net Proc (=P-1)	33,969	29,270	46,224	38,411	44,024	0	0	191,898
Plus CY Adv Proc								
Weapon System Cost								
Multiyear Proc								
Proc Qty	3	2	4	4	4	0	0	17
Gross Cost (P-1)	32,331	27,882	42,633	34,577	34,542	0	0	171,965
Less PY Adv Proc		7,633	5,893	6,014	7,682	0	0	27,222
Net Proc	32,331	20,249	36,740	28,563	26,860	0	0	144,743
Plus CY Adv Proc	7,633	19,591						27,224
Weapon System Cost	39,964	39,840	36,740	28,563	26,860	0	0	171,967
Multiyear Savings (\$)	-5995.00	-10570.00	9,484	9,848	17,164	0	0	19,931
Multiyear Savings (%)	-0.18	-0.36	21%	26%	39%			10%
OUTLAYS								
Annual	5095.35	12882.75	34,633	34,880	43,941	34,053	26,414	191,898
Multiyear	5994.60	15967.00	43,433	55,433	51,139	0	0	171,967
Savings	-899.25	-3084.25	-8,801	-20,554	-7,198	34,053	26,414	19,931
<p>Remarks: Multi-year outlays faster than annual procurements due to all material being procured in first two years; total outlays will result in a savings of \$19,931K.</p> <p>This chart compares the total program funding for the annual proposal and the multiyear proposal.</p> <p style="text-align: center;">P-1 Shopping List - Item No 150</p> <p style="text-align: right;">Page No 12</p> <p style="text-align: center;">Exhibit MYP-2, Total Program Funding Plan</p>								

Exhibit MYP-3, Contract Funding Plan			Date February-99					
Appropriation (Treasury) Code/CC/BA/BSA/Item Control No BA-4 Other Procurement, Navy			P-1 Line Item Nomenclature RAM GMLS					
	Budget Year 1	Budget Year 2	BY 2+1	BY 2+2	BY 2+3	BY 2+4	BY 2+5	Total
Annual Procurement								
Proc Qty	3	2	4	4	4	0	0	17
Gross Cost	14,165	9,813	20,423	21,005	21,468	0	0	86,874
Less PY Adv Proc								
Plus CY Adv Proc								
Net Proc (=P-1)	14,165	9,813	20,423	21,005	21,468	0	0	86,874
Multiyear Proc								
Proc Qty	3	2	4	4	4	0	0	17
Gross Cost	12,527	8,425	16,832	17,171	17,657	0	0	72,612
Less PY Adv Proc	0	7,633	5,893	6,015	7,682	0	0	27,224
Net Proc (=P-1)	12,527	792	10,939	11,156	9,975	0	0	45,388
Plus CY Adv Proc	7,633	19,591						27,224
Contract Price	20,160	20,383	10,939	11,156	9,975	0	0	72,612
Multiyear Savings (\$)	-5995	-10570	9,484	9,849	11,493	0	0	14,262
Multiyear Savings(%)	-42%	-108%	46%	47%	54%			16%
OUTLAYS								
Annual	2,125	5,013	14,016	14,144	20,725	17,970	12,881	86,874
Multiyear	3,024	8,097	20,871	21,163	19,457	0	0	72,612
Savings	-899	-3,084	-6,855	-7,019	1,269	17,970	12,881	14,262
Remarks:								
This chart compares the funding for the annual proposal and the multiyear proposal for the multiyear contract.								
<p style="text-align: center;">P-1 Shopping List - Item No 150 Page No 13</p> <p style="text-align: center;">Exhibit MYP-3, Contract Funding Plan</p>								

Exhibit MYP-4, Present Value Analysis			Date February-99					
Appropriation (Treas) Code/CC/BA/BSA/Item Control No BA-4 Other Procurement, Navy			P-1 Line Item Nomenclature					
	Budget Year 1	Budget Year 2	BY 2+1	BY 2+2	BY 2+3	BY 2+4	BY 2+5	Total
Annual Procurement								
Then Year Cost	2,125	5,013	14,016	14,144	20,725	17,970	12,881	86,874
Constant Year Cost	2,056	4,767	13,087	12,946	18,559	15,753	11,059	78,228
Present Value	2,125	4,844	13,084	12,757	18,061	15,130	10,479	76,479
Multiyear Proc								
Then Year Cost	3,024	8,097	20,871	21,163	19,457	0	0	72,612
Constant Year Cost	2,926	7,700	19,487	17,808	17,424	0	0	65,345
Present Value	3,024	7,823	19,483	19,088	16,956	0	0	66,374
			0					
Difference								
Then Year Cost	-899	-3,084	-6,855	-7,019	1,268	17,970	12,881	14,262
Constant Year Cost	-870	-2,933	-6,401	-4,862	1,136	15,753	11,059	12,882
Present Value	-899	-2,980	-6,399	-6,330	1,105	15,130	10,479	10,105
Multiyear Savings (\$)	-899	-2,980	-6,399	-6,330	1,105	15,130	10,479	10,105
Multiyear Savings (%)	-42%	-59%	-46%	-45%	5%	84%	81%	13%
<p>Remarks</p> <p>This exhibit is prepared for the contract values. Then year costs agree with the outlay amounts contained on MYP-3. Constant costs are expressed in FY98 dollars. Present value analysis has been calculated in accordance with DoD Instruction 7041.3.</p>								
P-1 Shopping List - Item No 150				Page No 14				
Exhibit MYP-4, Present Value Analysis								

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / 4 ORDNANCE SUPPORT EQUIPMENT							P-1 ITEM NOMENCLATURE/LINE ITEM # SHIP SELF DEFENSE SYSTEM (SSDS) MK 1 / 5239					
Program Element for Code B Items:							OTHER RELATED PROGRAM ELEMENTS N/A					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY	N/A	A	2	4	4	0	3	7	4	3	7	34
EQUIPMENT COST (In Millions)	N/A	A	\$18.5	\$38.8	\$38.8	\$15.0	\$26.9	\$69.1	\$58.0	\$42.3	\$103.5	411.0
SPARES COST (In Millions)	N/A	A	\$0.0	\$1.4	\$2.8	\$2.2	\$3.4	\$2.4	\$2.4	\$1.6	N/A	16.3
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p>SHIP SELF DEFENSE SYSTEM (SSDS) - Funds are requested to procure an evolutionary Ship Self Defense System (SSDS) for non-AEGIS ships. The Ship Self Defense System is a coordinated engineering approach to improve ship self defense utilizing existing and planned defensive systems in Navy ships. The program coordinates the efforts of diverse acquisition programs that are in varying stages of programmatic maturity, most of which have products already in the fleet. A two phase evolutionary acquisition program structure defined in the AN/SYQ 17 Rapid Anti-Ship Missile Integrated Defense System Operational Requirement 240-03-89 identifies the rapid delivery of an automated anti-ship missile defense tactical decision aid for surface combatants, SSDS MK 0, followed by an evolutionary program to integrate sensors and automate engagement sequences of hardkill and softkill systems. The latter phase is identified as SSDS MK 1.</p> <p>SSDS MK 0 - Rapid Anti-Ship Missile Integrated Defense System (RAIDS) using ruggedized personal computer workstations and an ETHERNET LAN, provides decision support to weapons systems operators and managers using data from AN/SLQ-32 and CIWS radar. The MK 0 is designated for use on 25 DD 963 Class and FFG 7 Class. The DD 963 systems were budgeted in FY 93 funding for AN/SLQ-32. A DD 963 MK 0 contract was awarded 12 May 1994. The FY 94 Point Defense budget procured MK 0 systems for sixteen FFG 7 Class ships. The FFG 7 SSDS MK 0 contract was awarded 7/95. There are no procurements planned after FY 96. The installation agent for the SSDS MK 0 is NSWC Port Hueneme with installations via Alteration Installation Team (AIT). Sixteen installations were performed in FY 97.</p> <p>SSDS MK 1 - The Ship Self Defense System MK 1 implements the second phase of an evolutionary acquisition of improved ship self defense capabilities against anti-ship cruise missiles for selected ships by integrating existing and programmed anti-air warfare stand-alone systems and thereby providing an automated quick reaction and multi-target engagement capability emphasizing performance in the littoral environment. Integration will focus on coordinating existing sensor information, providing threat identification and evaluation, assessing defensive readiness, and recommending an optimized defensive tactical response to counter single and multiple anti-ship cruise missile attacks. Subsequent modifications will require replacement of commercial-off-the-shelf (COTS) equipment and optimize the Ship Self Defense System, providing enhanced self defense capabilities while allowing for insertion of advanced technologies during Engineering and Manufacturing Development and Production Deployment Phases. System design emphasizes use of non-developmental items and commercial standards. Development testing started May 1996 with operational testing completed in June 1997. Raytheon Services Co., San Diego CA, is the system Design Agent. JHU/APL, Laurel MD, is the Technical Design Agent. SSDS MK1 is planned for installation on LSD 41-47 and 49-51, LHD 1-7, LHA 1-5, and CV(N) 63, 65, 67, 68, 70-75. These procurements support the Back-Fit portion of the overall SSDS MK 1 acquisition plan. The installation agent for SSDS MK 1 is NSWC Port Hueneme with installations planned via Shipyards and AIT.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System			DATE: February 1999				
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / 4 ORDNANCE SUPPORT EQUIPMENT						ID Code A	P-1 ITEM NOMENCLATURE/SUBHEAD SHIP SELF DEFENSE SYSTEM (SSDS) MK 1 / A4UQ							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000					
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>SPONSOR N86</u> EQUIPMENT	A												
UQ001	SSDS MK1- (NON -ADD)		(2)		(10,197)	(4)		(22,786)	(4)		(25,305)			
	LSD		2	5,098	10,197	3	5,473	16,419	2	5,565	11,130			
	LHD								0	0	0			
	CV(N)								1	7,700	7,700			
	SHOREBASED					1	6,367	6,367	1	6,475	6,475			
UQ002	SSDS PRODUCTION SUPPORT				1,674			4,839			2,851			
UQ003	SSDS ECP				0			1,183			0			
UQ004	SSDS TRAINING				146			2,322			0			
UQ005	SSDS COTS REPLACEMENT				0			0			0			
UQ007	SSDS FOR SWY - 1/3				0			781			800			
UQ009	SSDS CSS				75			0			0			
	INSTALL													
UQ775	SSDS MK1 EQUIP. INSTALL (FMP)				3,380			6,872			9,834			
UQ6IN	EQUIPMENT INSTALL (NON-FMP)				3,068			0			0			
TOTAL					18,540			38,783			38,790			0

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / 4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SHIP SELF DEFENSE SYSTEM (SSDS) MK 1				February 1999	
									SUBHEAD A4UQ	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR (98) LSD (UQ001)	2	5,098	NAVSEA	7/96	FFP	HUGHES 3970 Sherman St San Diego CA 92110	9/96	3/97	YES	N/A
FISCAL YEAR (99) LSD (UQ001)	3	5,473	NAVSEA	8/98	FFP	RAYTHEON 3970 Sherman St San Diego CA 92110	2/99	12/99	YES	N/A
SHORE (UQ001)	1	6,367								
FISCAL YEAR (00) LSD (UQ001)	2	5,565	NAVSEA	8/99	FFP	RAYTHEON 3970 Sherman St San Diego CA 92110	TBD	10 mos. after Award	NO	7/99
CVN (UQ001)	1	7,700								
SHORE (UQ001)	1	6,475								
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: SHIP SELF DEFENSE SYSTEM (SSDS) MK 1 TYPE MODIFICATION: ShipAlt / New Construction MODIFICATION TITLE: _____

DESCRIPTION/JUSTIFICATION:
 Implements an evolutionary acquisition of improved ship self defense capabilities against Anti-Ship Cruise Missiles for selected non-AEGIS ships by integrating existing programmed Anti-Air Warfare stand alone systems. It provides an automated quick reaction and multi-target engagement capability emphasizing performance in the littoral environment. Integration focuses on coordinating existing sensor information, providing threat identification and evaluation, assessing defensive readiness, and recommending optimized defensive tactical response to counter single and Multiple Anti-Ship Cruise Missile attacks.
 The Inventory Objective for this item = 36 (See P-40 Program Description/Justification)

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Milestone III decision approved 5 March 1998

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
RDT&E	7	106.3																					7	106.3	
PROCUREMENT	3	10.8	0	0.0	2	10.2	4	10.9	4	29.7	0	0.0	3	22.8	7	56.2	4	33.6	3	25.7	6	63.0	36	263.1	
INSTALLATION KITS																						0	0.0		
INSTALLATION KITS NONRECURRING																				0	0.0	0	0.0		
EQUIPMENT	3	10.8		0.0	2	10.2	3	16.4	3	18.8	0	0.0	2	16.1	6	49.4	4	33.6	3	25.7	6	63.0	32	244.1	
EQUIPMENT NONRECURRING																				0	0.0	0	0.0		
ENGINEERING CHANGE ORDERS								1.2								1.2		0.0		0.0	0	0.0	0	2.4	
DATA																				0	0.0	0	0.0		
TRAINING EQUIPMENT							1	6.4	1	6.5					1	6.8		0.0		0.0	0	0.0	3	19.7	
SUPPORT EQUIPMENT													1	6.7						0	0.0	1	6.7		
OTHER (Production Support)		4.0		7.3		1.7		4.8		2.9		1.6		1.7		3.3		2.8		3.1	0	6.5	0	39.6	
OTHER (Training)				2.0		0.1		2.3		0.0		0.0		0.0		0.0		0.0		0.0	0	0.0	0	4.5	
OTHER (COTS Replacement)				0.0		0.0		0.0												0	0.0	0	0.0		
OTHER (SWY Support)				0.0		0.0		0.8		0.8		0.8		0.8		0.8		0.8		0.8	0	0.0	0	5.6	
OTHER (CSS)		0.4		0.2		0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0	0	0.0	0	0.7	
INTERIM CONTRACTOR SUPPORT																				0	0.0	0	0.0		
TOTAL PROCUREMENT		15.2		9.5		12.1		31.9		29.0		2.4		25.3		61.5		37.3		29.5	0	69.5	0	323.2	
INSTALL COST*		0.9		7.5		6.4		6.9		9.8		12.6		1.6		7.6		20.7		12.8	0	34.0	0	120.9	
TOTAL PROGRAM COST		16.1		17.0		18.5		38.8		38.8		15.0		26.9		69.1		58.0		42.3	0	103.5	0	444.1	

* Includes FMP, Planning, and Non-FMP Installation

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SHIP SELF DEFENSE SYSTEM (SSDS) MK 1 MODIFICATION TITLE: _____

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT / Shipyard

ADMINISTRATIVE LEADTIME: 4 Months

PRODUCTION LEADTIME: 10 Months

CONTRACT DATES: FY 1997: N/A

FY 1998: Apr-98

FY 1999: Feb-99

DELIVERY DATE: FY 1997: N/A

FY 1998: Feb-99

FY 1999: Dec-99

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total					
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$				
PRIOR YEARS																												
FY 1995 EQUIPMENT																												
FY 1996 EQUIPMENT	0	0.9	2	7.5	1	6.4																		3	14.8			
FY 1997 EQUIPMENT																									0	0.0		
FY 1998 EQUIPMENT								2	6.9																	2	6.9	
FY 1999 EQUIPMENT										3	9.8															3	9.8	
FY 2000 EQUIPMENT												3	12.6													3	12.6	
FY 2001 EQUIPMENT														0	1.6												0	1.6
FY 2002 EQUIPMENT																2	7.6									2	7.6	
FY 2003 EQUIPMENT																		6	20.7								6	20.7
FY 2004 EQUIPMENT																				4	12.8						4	12.8
TO COMPLETE																						9	34.0				9	34.0

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	3	0	0	2	0	0	2	1	0	0	1	1	1	0	0	0	0	1	1	0	0	0	3	0	3	1	2	1	0	9	32
Out	3	0	0	0	2	0	0	2	1	0	1	0	1	1	0	0	0	0	0	0	1	1	0	0	2	1	1	3	2	10	32

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999													
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA - 4 ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # AEGIS SUPPORT EQUIPMENT/524600/524605													
Program Element for Code B Items:								OTHER RELATED PROGRM ELEMENTS													
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total									
QUANTITY	N/A	N/A									N/A										
EQUIPMENT COST (In Millions)	N/A	A	\$23.0	\$93.8	\$86.7	\$71.7	\$167.6	\$303.3	\$386.5	\$458.7	N/A	\$1591.3									
SPARES COST (In Millions)	N/A	A	0.700	0.491	0.202	0.343	0.000	0.900	0.900	0.900	N/A	4.436									
PROGRAM DESCRIPTION/JUSTIFICATION:																					
<p>1. This program provides equipments for shore facilities and for shipboard upgrades to support the battle readiness of AEGIS Cruisers and Destroyers in the following area: a. Special Tooling and Test Equipment for AEGIS unique depots; b. Computer, displays and simulators for the AEGIS Computer Center (ACC) at Dahlgren, Va.; c. Weapon/Combat System equipments for the AEGIS Combat System Center (ACSC) at Wallops Island, Va.; d. Weapon System Training equipment for the AEGIS Training & Readiness Center (ATRC) at Dahlgren, Va.; e. AEGIS Weapon System ORDALT procurement; f. AEGIS Weapon System SHIPALT procurement; g. AEGIS Common Equipment to support shorter Regular Overhauls and Selected Restricted Availabilities. Includes Weapon and Ship System Components that require long repair turn-around; h. Field Activity Integrated Communications Equipment; i. Smart Ship-Type Sytems Engineering Control and Surveillance Equipment (ECSE); j. CG Conversion (includes Area TBMD, Land Attack, & Area Air Defense Commander; k. Shipboard equipment Installation.</p> <p>2. The FY 1998-05 funds will be used to upgrade three centers (AEGIS Computer Center, AEGIS Training & Readiness Center (ATRC) and AEGIS Combat Systems Center) to properly accommodate CG 47 and DDG 51 Combat System Baselines and to provide shipboard SHIPALT and ORDALT equipments for four CG 47 Class Cruiser Baselines and two Destroyer Baselines. Funding is also for the installation of equipment including the Fleet Modernization Program, training equipment, and other shore facilities. These include, among others, the following major Weapon/Combat systems:</p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 50%;">DESCRIPTION</th> <th style="width: 25%;">APPLICABLE HULLS</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">CG BASELINE 1</td> <td> SPY-1A RADAR AEGIS DISPLAY SYSTEM MARK I MARK 26 LAUNCHING SYSTEM LAMPS MARK III HELICOPTER MK 116 MOD 4 UNDERWATER FIRE CONTROL UYK-7/20 COMPUTERS UYA-4 DISPLAYS MK 86 GUNFIRE CONTROL SYSTEM </td> <td style="vertical-align: top;">CG-47 - CG 51</td> </tr> <tr> <td style="text-align: center;">CG BASELINE 2</td> <td> CG BASELINE 1 PLUS TOMAHAWK WEAPON SYSTEM ANTI-SUBMARINE WARFARE UPGRADE SQQ-89 MK 41 VERTICAL LAUNCH SYSTEM IN PLACE OF MK 26 BACKFIT COMPUTERS/AN/UYQ-70 DISPLAYS ECSE UPGRADE/COTS COMPUTER </td> <td style="vertical-align: top;">CG 52 -CG 58</td> </tr> </tbody> </table>														DESCRIPTION	APPLICABLE HULLS	CG BASELINE 1	SPY-1A RADAR AEGIS DISPLAY SYSTEM MARK I MARK 26 LAUNCHING SYSTEM LAMPS MARK III HELICOPTER MK 116 MOD 4 UNDERWATER FIRE CONTROL UYK-7/20 COMPUTERS UYA-4 DISPLAYS MK 86 GUNFIRE CONTROL SYSTEM	CG-47 - CG 51	CG BASELINE 2	CG BASELINE 1 PLUS TOMAHAWK WEAPON SYSTEM ANTI-SUBMARINE WARFARE UPGRADE SQQ-89 MK 41 VERTICAL LAUNCH SYSTEM IN PLACE OF MK 26 BACKFIT COMPUTERS/AN/UYQ-70 DISPLAYS ECSE UPGRADE/COTS COMPUTER	CG 52 -CG 58
	DESCRIPTION	APPLICABLE HULLS																			
CG BASELINE 1	SPY-1A RADAR AEGIS DISPLAY SYSTEM MARK I MARK 26 LAUNCHING SYSTEM LAMPS MARK III HELICOPTER MK 116 MOD 4 UNDERWATER FIRE CONTROL UYK-7/20 COMPUTERS UYA-4 DISPLAYS MK 86 GUNFIRE CONTROL SYSTEM	CG-47 - CG 51																			
CG BASELINE 2	CG BASELINE 1 PLUS TOMAHAWK WEAPON SYSTEM ANTI-SUBMARINE WARFARE UPGRADE SQQ-89 MK 41 VERTICAL LAUNCH SYSTEM IN PLACE OF MK 26 BACKFIT COMPUTERS/AN/UYQ-70 DISPLAYS ECSE UPGRADE/COTS COMPUTER	CG 52 -CG 58																			

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA - 4 ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # <i>AEGIS SUPPORT EQUIPMENT/524600/524605</i>	
	DESCRIPTION	APPLICABLE HULLS
CG BASELINE 3	CG BASELINE 2 PLUS SPY-1B RADAR IN PLACE OF SPY-1A UYQ-21 DISPLAYS IN PLACE OF UYA-4 BACKFIT UYK-43 (LoBoy)/44 COMPUTERS ECSE UPGRADE/COTS COMPUTER	CG 59 - CG 64
CG BASELINE 4	CG BASELINE 3 PLUS VERTICAL LAUNCH ASROC SM-2 MISSILE UPGRADE UYK 43/44 COMPUTERS IN PLACE OF UYK-7/20s ECSE UPGRADE/COTS COMPUTERS	CG 65 - CG 73
CG BASELINE 6 III C	CG BASELINE 4 PLUS BASELINE 6 LAND ATTACK AREA TBMD AREA AIR DEFENSE COMMANDER (AADC)	CG 65 - CG 73
CG BASELINE 7 I C	CG BASELINE 2 PLUS BASELINE 7 LAND ATTACK AREA TBMD	CG 52, CG 56, CG 58
DDG BASELINE 4	CG BASELINE 3 PLUS SPY-1D RADAR IN PLACE OF SPY-1B MK 160 GUN COMPUTING SYSTEM IN PLACE OF MK 86 UYK 43/44 COMPUTERS IN PLACE OF UYK-7/20s	DDG 51 - DDG 67

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA - 4 ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # <i>AEGIS SUPPORT EQUIPMENT/524600/524605</i>	
	DESCRIPTION	APPLICABLE HULLS
DDG BASELINE 5	DDG BASELINE 4 PLUS JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM (JTIDS/COMMAND AND CONTROL (C2P) TADIL J COMBAT DIRECTION FINDING (CDF) TACTICAL DATA INFORMATION EXCHANGE SYTEM (TADIX B) AN/SLQ-32 (V) 3 ACTIVE ELECTRONIC CONTERMEASURES (ECM) AEGIS EXTENDED RANGE (ER) MISSILE	DDG 68 - DDG 78
DDG BASELINE 6 PH I	DDG BASELINE 5 PLUS ORTS UPGRADE, ECM UPGRADE, ACTS REHOST AN/UYQ-70, DOPPLER SONAR VELOCITY SQQ-89(V)10, ATWCS PHASE 2	DDG 79 - DDG-84

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE:					
P-5									February 1999					
APPROPRIATION/BUDGET ACTIVITY						ID Code			P-1 ITEM NOMENCLATURE/SUBHEAD					
Other Procurement, Navy									AEGIS SUPPORT EQUIPMENT					
BA - 4 ORDNANCE SUPPORT EQUIPMENT									AEGIS SUPPORT EQUIPMENT/524600/524605					
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>SPONSOR N86</u>													
L7001	DEPOT SPECIAL TOOLING/TEST EQPT	A			366			1500			835			
L7003	AEGIS COMPUTER CENTER EQPT	A			409			1364			1616			
L7004	BASELINE CONSOLIDATION	A			0			30300			0			
L7005	SMART SHIP TYPE SYSTEMS (ECSE)	A			0			23821			36729			
L7006	AEGIS COMBAT SYSTEM CENTER EQPT	A			728			2762			1637			
L7007	AEGIS TRAINING & READINESS CENTER	A			373			914			1673			
L7010	AEGIS WEAPON SYSTEM ORDALTS	A			6303			4285			7288			
L7011	AEGIS WEAPON SYSTEM SHIPALTS	A			3615			3410			17245			
L7013	AEGIS COMMON EQUIPMENT	A			0			485			3195			
L7016	FIELD ACT'Y INTEGRATED COMM EQPT	A			178			427			380			
L7021	CG CONVERSION	A			0			0			0			
L7600	INSTALLATION OF EQPT, FMP	A			11024			24501			16070			
TOTAL					22,996			93,769			86,668			0

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Other Procurement, Navy					AEGIS SUPPORT EQUIPMENT-524600				A4L7	
BA - 4 ORDNANCE SUPPORT EQUIPMENT										
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR 1998										
L7003										
AEGIS COMPUTER CENTER										
COMMERCIAL SYS COMP	1 LOT	100	NSWC/DD	N/A	RCP/WR	VARIOUS	3/98	2/00	YES	
CP MODERNIZATION	1 LOT	200	NSWC/DD	N/A	RCP/WR	" "	3/98	2/00	YES	
TACTICAL SYSTEM	1 LOT	109	NSWC/DD	N/A	RCP/WR	" "	3/98	2/00	YES	
L7006										
ACS CENTER										
NON-TACTICAL EQPT	1 LOT	728	NSWC/DD	N/A	WR	NSWC/DD	12/97	12/98	YES	
L7007										
AEGIS TRAINING & READINESS CENTER										
BACK PLANE TRAINER	1 LOT	175	NSWC/DD	N/A	RCP	LOCKHEED/MARTIN	3/98	1/00	YES	
CAST PART TASK TRAINER	1 LOT	198	CO ATRC/DD	N/A	WR	NOS/IH INDIAN HEAD, MD	1/98	1/00	YES	
L7010										
AWS ORDALTS										
O/A 20254, ECP A1438R1	1 LOT	997	DCMC/LM	3/98	BOA	LOCKHEED/MARTIN MOORESTOWN, NJ	3/98	2/99	YES	
O/A 20097, ECP A1335RIC	1 LOT	172	DCMC/LM	4/98	BOA	" "	4/98	2/99	YES	
L7011										
AWS SHIPALTS										
MMSD, AN/UYH-16	1	208	NAVSEA	4/98	SS/FP	CDI BLOOMINGTON, MN	2/98	2/00	YES	
CLSD	1	185	SUPSHIP/PASC	N/A		AMPRO	4/98	3/99	YES	
UYK 43 MODKITS	5	85	NAVSEA	N/A	SS/FP	LMTDS ST. PAUL, MN	4/98	2/00	YES	
TAC-4 EQUIP.	2	194	NAVSEA/NISMC	1/98	RCP	HEWLETT PACKARD	1/98	5/99	YES	
ORTS UPGRADE	2	149	NAVSEA	2/98	BOA	LOCKHEED/MARTIN MOORESTOWN, NJ	6/98	4/00	YES	
AADC	1	1800	NAVSEA	N/A	SS/FP	APL BALTIMORE, MD	4/98	6/99	NO	
D. REMARKS										
Note: L7010 is based on awarded contract totals.										

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LMTS: LOCKHEED MARTIN TACTICAL SYSTEMS (FORMERLY UNISYS)

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Other Procurement, Navy					AEGIS SUPPORT EQUIPMENT-524600				A4L7	
BA - 4 ORDNANCE SUPPORT EQUIPMENT										
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR 1999										
L7003										
AEGIS COMPUTER CENTER										
COMMERCIAL SYS MOD	1 LOT	1164	NSWC/DD	N/A	RCP	NSWC/DD	3/99	1/01	YES	
CABLES	1 LOT	200	NSWC/DD	N/A	RCP	NSWC/DD	3/99	1/01	YES	
L7004										
BASELINE CONSOLIDATION										
SPY 1D UPGRADES	4	1953	NAVSEA	N/A ¹	BOA	LOCKHEED/MARTIN MOORESTOWN, NJ	2/99	1/01	YES	
ADJUNCT PROCESSORS	4	3100	NAVSEA	N/A ¹	BOA	LOCKHEED/MARTIN EAGAN, MINN	2/99	11/01	YES	
Q-70 CONSOLES	26	388	NAVSEA	N/A ¹	BOA	LOCKHEED/MARTIN EAGAN, MINN	2/99	11/01	YES	
L7005										
SMARTSHIP TYPE SYSTEMS										
SMARTSHIP UPGRADE CRUISER	4	5111	NAVSEA	12/98	F/P	TBD	02/99	02/00	YES	
LAND BASED ENG (CRUISER)	N/A	2599	NAVSEA	12/98	F/P	TBD	01/99	03/99	YES	
L7006										
ACS CENTER										
EQPT MODERNIZATION	1 LOT	1442	NSWC/DD	N/A	RCP	VARIOUS	2/99	12/99	YES	
COTS ENGINEERING	1 LOT	980	NSWC/DD	N/A	RCP	VARIOUS	2/99	12/99	YES	
SYSTEM ENGINEERING	1 LOT	310	CO ASCS WI	N/A	RCP	VARIOUS	2/99	12/99	YES	
EXCOMM	1 LOT	30	NAWCAD/PAX RIVER	N/A	RCP	VARIOUS	2/99	12/99	YES	
D. REMARKS										
1 UTILIZES EXISTING CONTRACTS.										

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LMTS: LOCKHEED MARTIN TACTICAL SYSTEMS (FORMERLY UNISYS)

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA - 4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE AEGIS SUPPORT EQUIPMENT-524600				SUBHEAD		
									February 1999		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
FISCAL YEAR 1999											
L7007											
AEGIS TRAINING & READINESS											
CAST PART TASK TRAINER	1 LOT	609	CO ATC DD	10/98	BOA	NOS/IH	2/99	12/99	YES		
FAULT INSERTION DEVICES	1 LOT	305	CO ATC DD	10/98	BOA	HUGHES FULLERTON, CA	2/99	12/99	YES		
L7010											
AWS ORDALTS											
MK 82 MOD 0	1 LOT	1565	LOCKHEED/MARTIN	TBD	BOA	LOCKHEED/MARTIN	TBD	TBD	YES		
1Kx1K SCRSC	68	40	HUGHES	1/99	BOA	HUGHES	5/99	5/00	YES		
L7011											
AWS SHIPALTS											
ORTS UPGRADE(TBMD)	2	440	NAVSEA	2/99	BOA	LOCKHEED/MARTIN	6/99	4/01	YES		
SGS, NEW GENERATION COMPUTER, MK 162	8	135	NAVSEA	12/98	SS/FP	" "	4/99	2/01	YES		
TVM BATTERIES	5	26	NSWC/CR	12/98	BOA	NSWC/CR	4/99	4/01	YES		
UYK 43 MODKITS	3	40	NAVSEA	12/98	SS/FP	LMTS ST. PAUL, MN	4/99	2/01	YES		
TIPS	1	1200	DCMC/LM	3/99	BOA	VARIOUS	7/99	5/01	YES		
L7013											
AEGIS COMMON EQUP.											
ACE FOR DDG-51 CLASS	1 LOT	242	SUPSHIP/BATH	3/99	SS/FP	BATH IRON WORKS BATH, ME	7/99	1/00	YES		
ACE FOR CG-47 CLASS	1 LOT	243	SUPSHIP/PASC	12/98	SS/FP	ISI LITTON PASCAGOULA, MS	4/99	1/00	YES		
D. REMARKS											
1 UTILIZES EXISTING CONTRACTS.											

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P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

ITEM NO.

PAGE NO.

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LMTS: LOCKHEED MARTIN TACTICAL SYSTEMS (FORMERLY UNISYS)

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA - 4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE AEGIS SUPPORT EQUIPMENT-524600				February 1999		
									SUBHEAD A4L7		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
FISCAL YEAR 2000											
L7003											
AEGIS COMPUTER CENTER											
COTS MODERNIZATION											
	1 LOT	1516	NSWC/DD	12/99	N/A	NSWC/DD	3/00	1/02	YES		
CABLES											
	1 LOT	100	NSWC/DD	12/99	N/A	UNICOR WOODLAND HILLS, CA	3/00	1/02	YES		
L7005											
SMARTSHIP TYPE SYSTEMS											
SMARTSHIP UPGRADE											
CRUISER											
	4	5110	NAVSEA	12/98	SS/FP	TBD	1/99	02/01	YES		
SMARTSHIP UPGRADE											
DESTROYERS											
	3	5200	NAVSEA	2/99	SS/FP	TBD	10/99	02/00	YES		
LAND BASED ENG (DDG)											
	N/A	689		12/98	SS/FP	TBD	10/99	12/99	YES		
L7006											
ACS CENTER											
SYSTEM ENGINEERING											
	1 LOT	405	CO ACSC WI	12/99	N/A	LOCKHEED MARTIN	2/00	12/00	YES		
EQUIPMENT MODERNIZATION											
	1 LOT	355	NSWC/DD	12/99	N/A	NSWC/DD	2/00	12/00	YES		
COTS ENGINEERING											
	1 LOT	586	NSWC/DD	12/99	N/A	NSWC/DD	2/00	12/00	YES		
EXCOMM EQUIPMENT											
	1 LOT	31	NAWCAD PAX RIVER	12/99	N/A	NAWCAD PAX RIVER	2/00	12/00	YES		
LLS CLOCK EXPANDER											
	1 LOT	260	LOCKHEED/MARTIN	TBD	N/A	LOCKHEED/MARTIN	TBD	TBD	TBD		
L7007											
AEGIS TRAINING & READINESS CENTER											
CAST PART TASK TRAINER											
	1 LOT	400	CO ATRC	10/98	RCP	NOS/IH INDIAN HEAD, MD	2/00	12/00			
FAULT INSERTION DEVICES											
	1 LOT	401	CO ATRC	1/00	RCP	HUGHES	5/00	5/01			
COTS MODERNIZATION											
	1 LOT	872	NSWC/DD	10/99	N/A	NSWC/DD	1/00	1/01	YES		
D. REMARKS											
Note: Non-recurring cost for DDG 51 is included in the Engineering and Logistic Support.											

LMTS: LOCKHEED MARTIN TACTICAL SYSTEMS (FORMERLY UNIS)

P-1 SHOPPING LIST

CLASSIFICATION:

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ITEM NO.

PAGE NO.

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA - 4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE AEGIS SUPPORT EQUIPMENT-524600				SUBHEAD	
									February 1999	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR 2000										
L7010										
AWS ORDALTS										
FAULT INDICATORS TB1019	57	8	DPRO LM	5/99	BOA	DPRO LOCKHEED MARTIN	5/00	6/01	YES	
ANTENNA HEATER	38	20	DPRO RAYTHEON	5/99	BOA	DPRO RAYTHEON	5/00	5/01	YES	
FAINT/INVERTER	7	200	DPRO RAYTHEON	5/99	BOA	DPRO RAYTHEON	5/00	5/01	YES	
POWER SUPPLY CIRCUIT BREAKERS	26	24	DPRO RAYTHEON	5/99	BOA	DPRO RAYTHEON	5/00	5/01	YES	
DOPPLER & CLUTTER GENERATORS	3	295	DPRO LM	5/99	BOA	DPRO LOCKHEED MARTIN	5/00	6/01	YES	
OUTPUT FILTER CABLE	38	13	DCMAO/SANTA ANA	5/99	BOA	DCMAO/SANTA ANA	5/00	6/02	YES	
TWT BIAS FAULT CIRCUIT	66	11	DPRO RAYTHEON	5/99	BOA	DPRO RAYTHEON	5/00	6/03	YES	
OL-267 SYSTEM CLOCK STABILITY	41	3	DPRO LM	5/99	BOA	DPRO LOCKHEED MARTIN	5/00	6/03	YES	
PHASED ARRAY ANTENNA MONITOR STROBE	45	12	DPRO LM	5/99	BOA	DPRO LOCKHEED MARTIN	5/00	6/03	YES	
1KX1K SCRSC	32	40	HUGHES	1/99	BOA	HUGHES	5/99	5/00	YES	
L7011										
AWS SHIPALTS										
TIP	10	900	NAVSEA	04/99	BOA	DPRO LOCKHEED MARTIN	4/00	2/02	YES	
TIP SWITCH	11	50	NAVSEA	04/99	BOA	DPRO LOCKHEED MARTIN	4/00	2/02	YES	
AN/UYK-43 TVM BATTERIES	3	26	NSWC/CR	04/99	N/A	NSWC/PHD ECO	4/00	2/02	YES	
ORTS UPGRADE	11	462	NAVSEA	04/99	RCP	NISMC	4/00	2/02	YES	
CLSD SUPPORT	10	200	NAVSEA	04/99	RCP	NCCOSC/RDTED(SD)	4/00	2/02	YES	
PWS/WCS UYK-43 UPGRADE	12	8	UNISYS	04/99	BOA	UNISYS	4/00	2/02	YES	
UYK-43 UPGRADE BFTT	22	20	UNISYS	04/99	BOA	UNISYS	4/00	2/02	YES	
D. REMARKS										
LMTS: LOCKHEED MARTIN TACTICAL SYSTEMS (FORMERLY UNISYS)										

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE			SUBHEAD			
Other Procurement, Navy					AEGIS SUPPORT EQUIPMENT-524600			February 1999			
BA - 4 ORDNANCE SUPPORT EQUIPMENT								A4L7			
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
L7013 AEGIS COMMON EQUIP. ACE FOR CG-47 CLASS	1 LOT	1073	SUPSHIP/PASC	TBD	SS/FP	ISI LITTON PASCAGOULA, MS	7/00	1/01	YES		
ACE FOR DDG-51 CLASS	1 LOT	1073	SUPSHIP/BATH	TBD	SS/FP	ISI LITTON BATH, ME	4/00	1/01	YES		
ACS EQUIPMENT	1 LOT	1049	NSWC/PHD	TBD	SS/FP	NSWC/PHD	4/00	1/01	YES		

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS WEAPONS SYSTEMS TYPE MODIFICATION: B/L 3 ENG UPGRADE MODIFICATION TITLE: AEGIS CRUISER, B/L 3 ENG UPGRADE

DESCRIPTION/JUSTIFICATION:

The Baseline 3 upgrade provides major performance enhancements in the areas of force command, Anti-Air Warfare (AAW) and Strike Warfare (STW) which are required to meet Navy Force Level warfare objectives. The upgrade provides the required computing and display capability to accommodate Cooperative Engagement Capability (CEC), Theater Ballistic Missile Defense (TBMD), JTIDS and SM-2 Block IV missiles.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 96 and Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT																									0.0
EQUIPMENT NONRECURRING	6	141.4																					6	141.4	
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST	6	141.4																							141.4
INSTALL COST	1	7.5	1	10.6	1	7.8	2	18.8	1	8.6													6	53.3	
TOTAL PROGRAM COST		148.9		10.6		7.8		18.8		8.6															194.7

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM

MODIFICATION TITLE: AEGIS CRUISER, B/L 3 ENG UPGRADE

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Scheduled availabilities in public and private shipyards. Admin L/T 3 Mo. Prod L/T 33 Mo.

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 33 Months

CONTRACT DATES: FY 1997: 4/97

FY 1998: 5/98

FY 1999: 1/99

DELIVERY DATE: FY 1997: 2/98

FY 1998: 1/99

FY 1999: 10/99

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	1	7.5	1	10.6	1	7.8	2	18.8	1	8.6													6	53.3
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
FY 2004 EQUIPMENT																								
FY 2005 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005	TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	3	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6		
Out	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6		

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS WEAPONS SYSTEMS TYPE MODIFICATION: BASELINE CONSOLIDATION MODIFICATION TITLE: AEGIS DDG, B/L CONSOLIDATION

DESCRIPTION/JUSTIFICATION:

The Baseline Consolidation is a plan developed by the Navy to accelerate forward fit introduction of TBMD. The OPN funding below will install TBMD at PSA for DDG 79-82 and PDA for 83-84.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT							4	30.3																4	30.3
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST							4	30.3																	30.3
INSTALL COST																									0.0
TOTAL PROGRAM COST								30.3																	30.3

P-1 SHOPPING LIST

CLASSIFICATION:

Note: installation to be funded from procurement funds during Post Delivery Availabilities.

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS WEAPONS SYSTEMS TYPE MODIFICATION: AWS ORDALTS MODIFICATION TITLE: ORDNANCE ALTERATIONS

DESCRIPTION/JUSTIFICATION:

This program provides for procurement and installation of emerging fact-of-life and safety modifications to the AEGIS Weapon System (AWS). These requirements will continue through the life of the Ships.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT	VAR	20.9	VAR	3.3	VAR	1.2	VAR	4.3	VAR	7.2	VAR	1.6	VAR	10.0	VAR	14.0	VAR	5.8	VAR	6.9	VAR	TBD	VAR	75.2	
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST		20.9		3.3		1.2		4.3		7.2		1.6		10.0		14.0		5.8		6.9		TBD		75.2	
INSTALL COST	VAR	4.6	VAR	1.9	VAR	2.3	VAR	3.2	VAR	4.0	VAR	0.9	VAR	5.2	VAR	5.6	VAR	5.8	VAR	5.9	VAR	TBD	VAR	39.4	
TOTAL PROGRAM COST		25.5		5.2		3.5		7.5		11.2		2.5		15.2		19.6		11.6		12.8		TBD		114.6	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM MODIFICATION TITLE: ORDNANCE ALTERATIONS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Original Equipment Manufacturer (OEM) Field Teams.

ADMINISTRATIVE LEADTIME: Varies Months PRODUCTION LEADTIME: Varies Months

CONTRACT DATES: FY 1997: Various FY 1998: Various FY 1999: Various

DELIVERY DATE: FY 1997: Various FY 1998: Various FY 1999: Various

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS			VAR 1.9																				VAR	1.9	
FY 1997 EQUIPMENT					VAR 2.3																			VAR	2.3
FY 1998 EQUIPMENT							VAR 3.2																	VAR	3.2
FY 1999 EQUIPMENT									VAR 4.0															VAR	4.0
FY 2000 EQUIPMENT										VAR 0.9														VAR	0.9
FY 2001 EQUIPMENT												VAR 5.2												VAR	5.2
FY 2002 EQUIPMENT													VAR 5.6											VAR	5.6
FY 2003 EQUIPMENT															VAR 5.8									VAR	5.8
FY 2004 EQUIPMENT																	VAR 5.9							VAR	5.9
FY 2005 EQUIPMENT																						VAR	TBD	VAR	TBD
TO COMPLETE																						VAR	TBD	VAR	TBD

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior VAR VAR	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL VAR VAR
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
		VAR	VAR	VAR	VAR																										

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS WEAPONS SYSTEMS TYPE MODIFICATION: AWS SHIPALTS MODIFICATION TITLE: SHIP ALTERATIONS

DESCRIPTION/JUSTIFICATION:

This program provides for procurement and installations of emerging fact-of-life, and safety modifications to the AEGIS Weapon System (AWS), including alterations which are prerequisite to ASW interoperability/compatability with other systems (TBMD/JTIDS/CEC/Tomahawk). These requirements will continue thurough the life of the ships. These SHIPALTS vary in scope and will be installed primarily by Alteration Installation teams and Public or Private Shipyards.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																								0	0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																								0	0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT			VAR	3.8	VAR	3.3	VAR	3.7	VAR	17.2	VAR	2.2	VAR	8.2	VAR	13.7	VAR	14.0	VAR	14.3	VAR	TBD	VAR	TBD	
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST				3.8		3.3		3.7		17.2		2.2		8.2		13.7		14.0		14.3		TBD		TBD	
INSTALL COST					VAR	3.8	VAR	2.5	VAR	3.5	VAR	4.0	VAR	3.2	VAR	3.1	VAR	2.5	VAR	1.9	VAR	TBD	VAR	TBD	
TOTAL PROGRAM COST				3.8		7.1		6.2		20.7		6.2		11.4		16.8		16.5		16.2		TBD		TBD	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AEGIS WEAPONS SYSTEM MODIFICATION TITLE: AWS SHIPALTS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Installation will be accomplished primarily by AIT teams.

ADMINISTRATIVE LEADTIME: Varies Months

PRODUCTION LEADTIME: Varies Months

CONTRACT DATES: FY 1997: Various

FY 1998: Various

FY 1999: Various

DELIVERY DATE: FY 1997: Various

FY 1998: Various

FY 1999: Various

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1997 EQUIPMENT						VAR 3.8																		VAR 3.8
FY 1998 EQUIPMENT									VAR 2.5															VAR 2.5
FY 1999 EQUIPMENT										VAR 3.5														VAR 3.5
FY 2000 EQUIPMENT											VAR 4.0													VAR 4.0
FY 2001 EQUIPMENT													VAR 3.2											VAR 3.2
FY 2002 EQUIPMENT															VAR 3.1									VAR 3.1
FY 2003 EQUIPMENT																	VAR 2.5							VAR 2.5
FY 2004 EQUIPMENT																			VAR 1.9					VAR 1.9
FY 2005 EQUIPMENT																					VAR	TBD	VAR	TBD
TO COMPLETE																					VAR	TBD	VAR	TBD

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	0	VAR	VAR	VAR	VAR	VAR	VAR																								
	0	0	VAR	VAR	VAR	VAR	VAR	VAR	VAR	VAR	VAR																				

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CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS WEAPONS SYSTEMS TYPE MODIFICATION: SMART SHIP MODIFICATION TITLE: SMART SHIP

DESCRIPTION/JUSTIFICATION:

Funds will be used to backfit labor saving Smart Ship core technologies on CG class ships.
 Note: Additional funds added to the program is a result of PBD 752. These funds will be used to accelerate the DDG profile to include engineering and logistic support.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT			4	23.4	0	0.0	4	23.8	7	36.7	11	56.5	10	50.5	5	26.2	6	30.6	6	31.2				53	278.9
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
PROCUREMENT COST			4	23.4	0	0.0	4	23.8	7	36.7	11	56.5	10	50.5	5	26.2	6	30.6	6	31.2				53	278.9
INSTALL COST																									0.0
TOTAL PROGRAM COST				23.4				23.8		36.7		56.5		50.5		26.2		30.6		31.2					278.9

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: AEGIS GUIDED MISSILE CRUISERS TYPE MODIFICATION: CG CONVERSION MODIFICATION TITLE: CG CONVERSION

DESCRIPTION/JUSTIFICATION:

Funds will be used to modernize CG class ships. Modifications include the following warfighting improvements: Area TBMD, Land Attack, and Area Air Defense Commander.

Note: AADC Comm Suite separately funded.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT												1	81.2	3	208.6	4	278.6	4	330.0	12					898.4
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST												1	81.2	3	208.6	4	278.6	4	330.0					12	898.4
INSTALL COST														*	23.0	1	39.9	3	58.9	8	TBD			12	TBD
TOTAL PROGRAM COST													81.2		231.6		318.5		388.9			TBD			TBD

*Planning for availability in following year.

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AEGIS GUIDED MISSILE CRUISERS MODIFICATION TITLE: CG CONVERSION

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: TBD

ADMINISTRATIVE LEADTIME: 3 Months

PRODUCTION LEADTIME: 21 Months

CONTRACT DATES: FY 2002: _____

FY 2004: _____ FY _____

DELIVERY DATE: FY 2003: _____

FY 2005: _____ FY _____

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1997 EQUIPMENT																								0.0
FY 1998 EQUIPMENT																								0.0
FY 1999 EQUIPMENT																								0.0
FY 2000 EQUIPMENT																								0.0
FY 2001 EQUIPMENT																								0.0
FY 2002 EQUIPMENT															*	23.0	1	32.9						1 55.9
FY 2003 EQUIPMENT																	*	7	3	48.3				3 55.3
FY 2004 EQUIPMENT																			*	10.6	4	TBD	4	10.6
FY 2005 EQUIPMENT																					4	TBD	4	TBD
TO COMPLETE																								

*Planning for availability in following year.

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	8	12
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	1	9	12

P-3A

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET										DATE:		
P-40										Feb-99		
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA4/Ordnance Support Equipment							P-1 ITEM NOMENCLATURE Surface Tomahawk Support Equipment (J45A) (PEO(CU))(BLI: 525000)					
Program Element for Code B Items: Not Applicable							Other Related Program Elements 0204229N					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY		A										
COST (In Millions)	1,153.1		61.5	97.6	85.8	71.9	68.5	60.1	57.1	58.6	Cont.	Cont.
<p><u>Afloat Planning System (APS) (03000)</u> provides Tomahawk Land Attack Missile (TLAM) mission planning capability to US Navy Battle Force and Battle Group Commanders. Installations are planned for CV/CVNs and five APS support facilities. APS consists of three segments: (a) TLAM Planning system (TPS) which plans conventional TLAM routes; (b) Digital Imagery Workstation Afloat (DIWSA) which processes required imagery data and (c) Mission Distribution System (MDS) which is the communications link with incoming threat, weather and imagery data, and outgoing TLAM missions sent to Tomahawk platforms.</p> <p><u>Advanced Tomahawk Weapons Control System (ATWCS) (06000)</u> procures Tomahawk Weapon Systems (TWS) hardware and software upgrades resulting from RDT&E initiated improvements, operational requirements, Desert Storm lessons learned, fleet systems reviews, and Land Base Test Site (LBTS) testing. This element funds the procurement of ATWCS which provides state-of-the-art open system architecture, greater graphical display, improved interface, increased mission storage capacity, improved flexibility and responsiveness.</p> <p><u>Installation of Equipment (07000 & 07001)</u> funds all Fleet Modernization Program (FMP) installation costs associated with ATWCS/TTWCS and all non-FMP installation costs associated with APS and shore-sited units of both systems.</p> <p><u>Theater Mission Planning Center (TMPC) Product Improvements (08000)</u> procures required software improvements. Tomahawk mission planning is highly dependent on mapping, charting and geodesy products from National Imagery and Mapping Agency (NIMA) and imagery from national systems. Transmitting the missions to Tomahawk capable platforms depends entirely on the Navy communications system which is continually improved and updated on a regular basis, many times annually. This funding allows TMPC to retain compatibility with, and exploit capabilities of, these systems. The FY 1999 Congressional plus-up of \$5M is budgeted in the TMPC line and funds upgrades to the Digital Imagery Workstation Suite (DIWS), a subsystem of TMPC. Specifically, this upgrades three DIWS units of the Rapid Deployment Suites.</p> <p>The FY00 program procures 31 ATWCS units, TMPC product improvements and associated systems support costs.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System						DATE: Feb-99			
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA4/Ordnance Support Equipment						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Surface Tomahawk Support Equipment (J45A) (PEO(CU))(BLI: 525000)								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998		FY 1999			FY 2000						
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	<u>Weapon Control System</u>														
03000	Afloat Planning System (APS)		324,243			0			0			0			
05000	Production Support		161,702			0			0			0			
06000	Advanced Tomahawk Weapons Control System (ATWCS)		503,819			25,935			31,028			41,064			
07000	Installation of Equipment (Non-FMP)		24,286			1,468			0			0			
07001	Installation of Equipment (FMP)		14,075			3,401			8,572			6,726			
08000	Theater Mission Planning Center (TMPC) Product Improvements		125,006			30,659			58,004			37,992			
			1,153,131			61,463			97,604			85,782			

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P3A INDIVIDUAL MODIFICATION																						
MODELS OF SYSTEM AFFECTED:		<u>CG/DD/DDG</u>				TYPE MODIFICATION: <u>Reliability</u>				MODIFICATION TITLE: <u>Advanced Tomahawk Weapons Control System (ATWCS)</u>												
DESCRIPTION/JUSTIFICATION:																						
ATWCS provides state-of-the-art open system architecture, greater graphical display, improved interface, mission storage capacity, flexibility and responsiveness over the previous Tomahawk Weapons Control System configuration.																						
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: <u>In-Production</u>																						
FINANCIAL PLAN (IN MILLIONS)	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
RDT&E																						
PROCUREMENT																						
INSTALLATION KITS	57	108.1	2	19.6	23	24.4	31	34.7	25	31.7	20	26.0	14	18.7	12	16.6	13	18.1		Cont		Cont
INSTALLATION KITS - UNIT COST		1.9		9.8		1.1		1.1		1.3		1.3		1.3		1.4		1.4				
INSTALLATION KITS NONRECURRING EQUIPMENT																						0.0
EQUIPMENT NONRECURRING																						0.0
ENGINEERING CHANGE ORDERS																						0.0
DATA																						0.0
TRAINING EQUIPMENT																						0.0
SUPPORT EQUIPMENT																						0.0
OTHER (Engineering Support)		25.0		6.3		6.6		6.4		6.0		6.8		7.0		6.9		7.4		Cont		Cont
OTHER																						0.0
OTHER																						0.0
INTERIM CONTRACTOR SUPPORT																						0.0
INSTALL COST	19	6.1	11	4.3	28	8.6	21	6.7	27	6.9	27	8.1	21	6.2	16	4.8	12	3.8		Cont		Cont
TOTAL PROCUREMENT	57	139.2	2	30.2	23	39.6	31	47.8	25	44.6	20	40.9	14	31.9	12	28.3	13	29.3		Cont		Cont

P3A (Continued)		INDIVIDUAL MODIFICATION (Continued)																									
MODELS OF SYSTEMS AFFECTED: <u>CG/DD/DDG</u>		MODIFICATION TITLE: <u>Advanced Tomahawk Weapons Control System (ATWCS)</u>																									
INSTALLATION INFORMATION:																											
METHOD OF IMPLEMENTATION: <u>FMP/Alteration Installation Team (AIT)</u>																											
ADMINISTRATIVE LEADTIME: <u>6 Months</u>		PRODUCTION LEADTIME: <u>12 Months</u>																									
CONTRACT DATES: FY 1999: <u>MARCH 99</u>		FY 2000: <u>MARCH 00</u>																									
DELIVERY DATE: FY 1999: <u>Multiple</u>		FY 2000: <u>Multiple</u>																									
(\$ in Millions)																											
Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total				
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$			
PRIOR YEARS	3	1.4	16	4.7	9	3.2																		28	9.3		
FY 1997 EQUIPMENT					2	1.1	27	8.3																	29	9.4	
FY 1998 EQUIPMENT							1	0.3	1	0.3															2	0.6	
FY 1999 EQUIPMENT									20	6.4	3	0.6													23	7.0	
FY 2000 EQUIPMENT											24	6.3	7	1.5											31	7.8	
FY 2001 EQUIPMENT													22	6.6	3	0.9										25	7.5
FY 2002 EQUIPMENT															18	5.3	2	0.6							20	5.9	
FY 2003 EQUIPMENT																	14	4.2							14	4.2	
FY 2004 EQUIPMENT																			12	3.8					12	3.8	
FY 2005 EQUIPMENT																							13	4.2	13	4.2	
TO COMPLETE																									Cont	Cont	

INSTALLATION SCHEDULE:		FY 1998 & Prior				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				IC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	47	10	0	0	1	1	5	6	7	5	8	8	8	7	7	6	6	6	5	5	5	5	4	4	3	3	4	4	4	3	4	4	4	Cont	Cont
Out	30	7	7	7	7	5	5	6	5	6	7	7	7	7	7	8	7	5	5	6	5	4	4	4	4	3	3	3	3	3	3	3	3	Cont	Cont

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: CV/CVN TYPE MODIFICATION: Reliability MODIFICATION TITLE: Afloat Planning System (APS)

DESCRIPTION/JUSTIFICATION:
 Afloat Planning System (APS) provides Tomahawk Land Attack Mission (TLAM) mission planning capability to US Navy Battle Force and Battle Group Commanders.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: In-Production

	FY 1997 & Prior		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
RDT&E																							
PROCUREMENT																							
INSTALLATION KITS	13	57.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	12.2	16	69.4	
INSTALLATION KITS - UNIT COST		4.4																					
INSTALLATION KITS NONRECURRING																							0.0
EQUIPMENT																							0.0
EQUIPMENT NONRECURRING																							0.0
ENGINEERING CHANGE ORDERS																							0.0
DATA																							0.0
TRAINING EQUIPMENT																							0.0
SUPPORT EQUIPMENT																							0.0
OTHER (ENGINEERING SUPPORT)		13.2		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		11.0		24.2	
OTHER																							0.0
OTHER																							0.0
INTERIM CONTRACTOR SUPPORT																							0.0
INSTALL COST	11	2.4	2	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	0.7	16.0	3.7	
TOTAL PROCUREMENT	11	72.8	0	0.6		0.0		0.0		0.0		0.0		0.0		0.0		0.0	3	23.9	16.0	97.3	

P3A (Continued)		INDIVIDUAL MODIFICATION (Continued)																									
MODELS OF SYSTEMS AFFECTED: <u>CV/CVN</u>										MODIFICATION TITLE: <u>Afloat Planning System (APS)</u>																	
INSTALLATION INFORMATION:																											
METHOD OF IMPLEMENTATION: <u>FMP/Alteration Installation Team (AIT)</u>																											
ADMINISTRATIVE LEADTIME: <u>9 Months</u>											PRODUCTION LEADTIME: <u>14 Months</u>																
CONTRACT DATES: FY 1999: <u>N/A</u>											FY 2000: <u>N/A</u>																
DELIVERY DATE: FY 1999: <u>N/A</u>											FY 2000: <u>N/A</u>																
(\$ in Millions)																											
Cost:		FY 96 & Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$			
PRIOR YEARS	7	1.9	4	0.5																				11	2.4		
FY 1997 EQUIPMENT					2	0.6																			2	0.6	
FY 1998 EQUIPMENT																									0	0.0	
FY 1999 EQUIPMENT																									0	0.0	
FY 2000 EQUIPMENT																									0	0.0	
FY 2001 EQUIPMENT																									0	0.0	
FY 2002 EQUIPMENT																									0	0.0	
FY 2003 EQUIPMENT																									0	0.0	
FY 2004 EQUIPMENT																									0	0.0	
FY 2005 EQUIPMENT																									3	0.7	
TO COMPLETE	7	0	1.9	4	0	0.5	2	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.7	
																										16	3.7

INSTALLATION SCHEDULE:		FY 1998 & Prior				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16
Out	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: Feb 1999		
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA4/Ordnance Support Equipment							P-1 ITEM NOMENCLATURE Submarine Tomahawk Support Equipment (J45B) (PEO(CU))(BLI: 525500)					
Program Element for Code B Items: N/A							Other Related Program Elements NONE					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY		A										
COST (In Millions)	\$113.0		\$1.4	\$3.9	\$2.1	\$2.8	\$3.9	\$3.3	\$8.2	\$8.5	Cont.	Cont.
<p>Submarine-Advanced Tomahawk Weapon Control System (Sub-ATWCS) provides open system architecture, extensive hardware (TAC-X) processors, Common Display Console Unit, racks, cables, connectors, etc., and software commonality with surface systems. Sub-ATWCS installation on 688 class submarines is a prerequisite for installation on New Submersable Ship Nuclear (NSSN).</p> <p>The FY 00 program procures necessary hardware to accommodate commonality and interface requirements between Sub-ATWCS and the CCS-MK2 Fire Control Systems for Tomahawk capable class submarines. The funding in FY 00 and out reflects the need to procure the multiple items of equipment identified above based on a time-phased requirements schedule.</p>												

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System			DATE: Feb 1999			
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA4/Ordnance Support Equipment						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD Submarine Tomahawk Support Equipment (J45B) (PEO(CU))(BLI: 525500)					
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS									
			Prior Years	FY 1998			FY 1999			FY 2000		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
02000	Submarine-ATWCS		113,000	2	696	1,392	6	657	3,944	3	692	2,075
			113,000	2	696	1,392	6	657	3,944	3	692	2,075

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # SSN 688 CLASS VERTICAL LAUNCH SYSTEM/845A BLI # 5260					
Program Element for Code B Items:								OTHER RELATED PROGRM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY				N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		0
EQUIPMENT COST (In Millions)		A		\$5.7	\$7.8	\$7.2	\$7.0	\$6.9	\$6.7	\$6.9	\$7.0		\$55.2
SPARES COST (In Millions)													0
PROGRAM DESCRIPTION/JUSTIFICATION:													
SUBMARINES													
<p>The SSN-688 Class Vertical Launch System (VLS) is a weapons system which provides the SSN-688 Class submarines with the capability to carry, status, preset, and launch up to twelve TOMAHAWK cruise missiles from vertical tubes located in the forward non-pressurehull area. This weapons system is being added to all SSN-688 Class submarines starting with SSN-719 in FY 86 with out degrading any existing SSN-688 Class weapons system capabilities or submarine operational characteristics. The VLS launches TOMAHAWK conventional land attack cruise missiles. The TOMAHAWK cruise missile was modified to allow operation in a vertical orientation. VLS was procured and installed under the SCN appropriation. VLS support, test, and handling equipment are provided by this OPN P-1 line item.</p> <p>The AUR Simulator is a test and training device that is loaded into a missile tube to simulate an operational Encapsulated TOMAHAWK Vertical All Up Round (AUR) allowing the VLS to be exercised through the launch phase without actually launching a missile. The AUR Simulator consists of an AUR Electronic Simulator enclosed in a Volumetric Shape. The AUR Electronic Simulator (AURES) simulates the AUR operations either while installed in the Volumetric Shape or in the stand-alone mode via electrical umbilical connection. The Volumetric Shape simulates the weight and shape of an operational AUR, provides a watertight, pressure-proof enclosure for the AURES, and interfaces with the missile tube in a manner similar to an operational AUR so that no damage to the tube will occur during simulation. The missile tube bore gauge is used to verify the proper missile tube clear bore to ensure compatibility with the TOMAHAWK AUR. The AUR loader is a funnel-shaped device which mounts to the missile tube muzzle face. It acts as a guide for the AUR and provides the mechanism to push the AUR down during loading and pull the AUR out of the missile tube during unloading. The Missile Tube Control Panel (MTCP) (SSN 719-725, 750) and the Tube Control Panel (TCP) (SSN 751-773) display...he status of the missile tubes, controls the operation of the missile tube hatches, and displays the status of various subsystems.</p> <p>Near-term (FY98-01) changes to the PR-99 budget due to emergent need include: Internal Load Bank thermal protection kit due to Submarine Tomahawk Action Board (STAB) requirement to increase MK 101 operating time. Additional MK 101s due to STAB requirement. Cancellation of the MK 101 upgrade to support Tomahawk Block Improvement Program and commencement of the MK 101 upgrade (Mod 4) to support Tactical Tomahawk. Face seals to provide protection from moisture during cable connection. Reduction in ships needing ShipAlt 3989K (Install Hull Access Plates). Improved test pressure stations modification to support Performance Monitoring Team (PMT) testing. Fairing linkage upgrade modification.</p> <p>Long-term (FY02-03) changes to the PR-99 budget and new FY04-05 items include: Improved AURVS cable. Improved AURVS Junction Box. Ballast Can covers due to removal problems with existing plug. Improved Ballast Can pads. Platform tent. Commencement of a Mod 5 MK 101 upgrade. Special test equipment. Hall switch upgrade. Improved Fairing Lock Cylinder modification. Hydraulic Actuator pipe flange modification.</p>													

P-1 SHOPPING LIST

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET		DATE:
P-40		February 1999
APPROPRIATION/BUDGET ACTIVITY	P-1 ITEM NOMENCLATURE/LINE ITEM #	
OTHER PROCUREMENT, NAVY BA-4	VERTICAL LAUNCH SURFACE SYSTEM/5260	
PROGRAM DESCRIPTION/JUSTIFICATION:		
<p><u>SURFACE</u></p> <p>VERTICAL LAUNCHING SYSTEM - The Vertical Launching System MK-41 is a general-purpose launching system, capable of launching missiles against air, surface, and subsurface targets in response to commands from the weapons control system. The VLS has capability to stow, select, prepare for launch, and launch the following missiles: Tomahawk, VLA, ESSM and SM-2 BLK II / III / IIIA / IIIB / IV. There are over 6,000 launcher cells in 67 VLS MK-41 equipped combatants in the fleet, 44 launchers in CG-47 class (two 61 cell launchers), 24 launchers in DD-963 class (one 61 cell launcher), and 31.5 launchers in DDG-51 class (one 61 cell and one 29 cell launcher).</p> <p>The OPN requirements are to procure ORDALT kits and government field activity support for ORDALT installation planning, provide sustaining engineering support to VLS ships in the fleet, and procure test equipment/special tool replacement in support of ship ROH/SRA testing. The VLS MK-41 program has requirements to procure ORDALTs required for SM-2 BLK IVA and SM-3 for DDG-51 and CG-47 classes in support of Navy Theater Ballistic Missile Defense (TBMD) program. Provide support in any safety and/or critical fleet problem investigations such as inadvertent deluge and missile dud investigations. Collect, investigate, and prioritize computer program trouble reports. Investigate discrepancies in, update, and correct shipboard Allowance Equipment Lists (AELs), Consolidated Onboard Ship Allowance Lists (COSALs), and configuration lists. Provide ORDALT production engineering support.</p>		

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WEAPONS SYSTEM COST ANALYSIS							Weapon System			DATE:				
P-5										February 1999				
APPROPRIATION/BUDGET ACTIVITY						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD							
OTHER PROCUREMENT, NAVY BA-4							SSN 688 CLASS VERTICAL LAUNCH SYSTEM/845A							
ORDNANCE SUPPORT EQUIPMENT							BLI # 5260							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
5A101	SUBMARINES N-87 AUR ELECTRONIC SIMULATOR Shape/skid Assembly Internal Load Bank Thermal Protection	A	29	1.0	29	23	1.0	23	7	240.0	1680	21	1.0	21
5A102	AUR ELECTRONIC SIMULATOR (AURES) MK-101 MK 101 External Load Bank Remote Weapons Sel Kit Mod 2 Fault insertion kit Mod 3 Tactical Tomahawk Kit Mod 4 Mod 53 Acceptance Tester	A	15	6.7	101	8	111.0	888						
			35	15.3	536	10	15.0	150						
			40	3.8	152	86	0.5	43						
			1	139.0	139	1	303.0	303	1	468.0	468			
						5	18.4	92						
5A107	LOADING SUPPORT EQUIPMENT Miscellaneous support equipment Training Tube Hydrostatic Tester Face Seals Parallel HO/ITL Mag Sw Platform	A	1	523.0	523	2	30.0	60			610			
			22	36.0	792	31	4.0	124						
5A116	FACILITY HARDWARE	A						288			183			
5A118	SHIPALT MATERIAL Self Lubricated Bearings Tube Control Panel Upgrade Tube 15/16 Access Plates MTCP Drain Inhibit Fix 5VDC PowerSupply Fix TCP Maintenance Module TCP Follow-on Upgrade MFD 3/9 Pos Ind Stabilizer Test Pressure Station Adaptors Fairing Linkage Upgrade	A	3	205.0	615	4	215.0	860						
						8	15.0	120						
						1	60.0	60	10	19.0	190			
						1	175.0	175	6	78.0	468			
									29	6.0	174			
									1	250.0	250			
	MATERIAL TOTAL	A			\$2,886			\$3,186			\$4,044			
5AINS	FMP INSTALLATIONS				829			594			864			
	INSTALLATION TOTAL				\$829			\$594			\$864			
SUBTOTAL SUBMARINE											\$3,715			
											\$3,780			
											\$4,908			

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5					Weapon System			DATE: February 1999			
APPROPRIATION/BUDGET ACTIVIT Other Procurement, Navy					ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD					
					A	VERTICAL LAUNCH SURFACE SYSTEM/145A					
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS								
			FY 1998			FY 1999			FY 2000		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	SURFACE N86										
5A003	VLS ORDALTS				1,313			2,365			1,154
5A830	PRODUCTION ENGINEERING				24			752			362
5A870	SPEC TOOLING/TEST EQUIP				113			0			0
5A900	CONSULTING SERVICES				48			35			26
5A5IN	FMP INSTALLATION				437			827			768
	TOTAL				1,935			3,979			2,310
SUBTOTAL SURFACE							1,935			3,979	2,310

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SSN 688 CLASS VERTICAL LAUNCH SYSTEM 5A101 AUR ELECTRONIC SIMULATOR			SUBHEAD 845A			
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
<u>FY1998</u> Internal Load Bank Thermal Protection	29	\$1	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A	
<u>FY1999</u> Internal Load Bank Thermal Protection	23	\$1	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A	
<u>FY2000</u> Internal Load Bank Thermal Protection	21	\$1	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A	
Shape/skid Assembly	7	\$240	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A	

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SSN 688 CLASS VERTICAL LAUNCH SYSTEM 5A102 AUR ELECTRONIC				SUBHEAD 845A	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u>FY1998</u>										
External Load Bank	15	\$7	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A
Remote Weapons Sel Kits	35	\$15	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A
Fault Insertion Kit	40	\$4	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A
Tactical Tomahawk Kit Mod 4	1	\$139	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A
<u>FY1999</u>										
MK 101	8	\$111	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A
Remote Weapons Sel Kits	10	\$15	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A
Fault Insertion Kit	86	\$5	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A
Tactical Tomahawk Kit Mod 4	1	\$303	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A
Mod 53 Acceptance Tester	5	\$18	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A
<u>FY2000</u>										
Tactical Tomahawk Kit	1	\$468	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SSN 688 CLASS VERTICAL LAUNCH SYSTEM 5A107 LOADING SUPPORT EQUIPMENT				SUBHEAD 845A	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u>FY1998</u>										
Training Tube	1	\$506	NNS		COMPET	COMPETITIVE/NNS	11/97	9/98	YES	N/A
Parallel HO/ITL Mag Sw	22	\$36	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A
<u>FY1999</u>										
Hydrostatic Tester	2	\$30	LCE		COMPET	COMPETITIVE/LCE	11/98	4/99	YES	N/A
Face Seals	31	\$4	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SSN 688 CLASS VERTICAL LAUNCH SYSTEM 5A118 SHIPALT MATERIAL			SUBHEAD 845A			
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
<u>FY1998</u> Tube Control Panel Upgrade	3	\$205	NUWC		COMPET	COMPETITIVE/NUWC	11/97	4/98	YES	N/A	
<u>FY1999</u> Tube Control Panel	4	\$215	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A	
MTCP Drain Inhibit Fix	8	\$15	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A	
TCP 5VDC PS Fix	1	\$60	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A	
TCP Maint Module	1	\$175	NUWC		COMPET	COMPETITIVE/NUWC	11/98	4/99	YES	N/A	
<u>FY2000</u> TCP 5VDC PS Fix	10	\$19	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A	
TCP Maint Module	6	\$78	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A	
Test Pressure Station Adaptors	29	\$6	LCE		COMPET	COMPETITIVE/LCE	11/99	4/00	YES	N/A	
Fairing Linkage Upgrade	1	\$250	NUWC		COMPET	COMPETITIVE/NUWC	11/99	4/00	YES	N/A	

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SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750,765,767 TYPE MODIFICATION: K SHIPALT MODIFICATION TITLE: SELF LUBRICATED BEARINGS SHIPALT SSN 3936K (5A118)

DESCRIPTION/JUSTIFICATION:

THIS MOD FIXED STUCK HATCHES DURING CYCLING AND MISSLE LAUNCH WITHOUT NEED FOR GREASING KITS AND INSTALLATION FOR SSN 766 AND SSN 768 - 773 WERE FUNDED VIA SCN.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT	9	0.449	8	0.424	3	0.135	4	0.260																24	1.268
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST	9	0.449	8	0.424	3	0.135	4	0.260																24	1.268
INSTALL COST			3	0.450	9	1.300	10	1.529	2	0.280														24	3.559
TOTAL PROGRAM		0.449		0.874		1.435		1.789		0.280															4.827

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773 MODIFICATION TITLE: SELF LUBRICATED BEARINGS SHIPALT SSN 3936K (5A118)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 8 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 1997: 4/96

FY 1998: 4/97

FY 1999: 4/98

DELIVERY DATE: FY 1997: 2/97

FY 1998: 2/98

FY 1999: 2/99

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS			3	0.450	6	0.867																	9	1.317
FY 1995 EQUIPMENT					3	0.433	5	0.708															8	1.141
FY 1996 EQUIPMENT							1	0.141	2	0.280													3	0.421
FY 1997 EQUIPMENT							4	0.680															4	0.680
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1997 & Prior	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	
Out	22	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 751 - 773 PLUS TWO SHORE SITES TYPE MODIFICATION: _____ MODIFICATION TITLE: TUBE CONTROL PANEL UPGRADE SHIPALT SSN 3939 (5A118)

DESCRIPTION/JUSTIFICATION:

THIS MOD FIXED THE FOLLOWING DEFICIENCIES: RESPONSE TIME DELAY; UNNECESSARY AUDIBLE ALARM WHILE TUBE IS EMPTY; POOR ACCESS TO AIR FILTERS; INABILITY TO KEEP AUR INTERNAL DIFFERENTIAL PRESSURE WITHIN SPECIFIED RANGE; DISPLAY OF DIFERNTIAL PRESSURE ONLY WHEN SYSTEM IS IN "OPERATE" MODE

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT			6	1.882	6	1.937	6	1.200	3	0.615	4	0.860												25	6.494
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST			6	1.882	6	1.937	6	1.200	3	0.615	4	0.860												25	6.494
INSTALL COST					2	0.436	10	1.163	5	0.549	3	0.405	2	0.285	3	0.490								25	3.328
TOTAL PROCUREMENT				1.882		2.373		2.363		1.164		1.265		0.285		0.490									9.822

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 751-773 PLUS TWO SHORE SITES MODIFICATION TITLE: TUBE CONTROL PANEL UPGRADE SHIPALT SSN 3939 (5A118)

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 8 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT					2	0.436	4	0.465																6	0.901
FY 1996 EQUIPMENT							6	0.698																6	0.698
FY 1997 EQUIPMENT									5	0.549														5	0.549
FY 1998 EQUIPMENT											3	0.405												3	0.405
FY 1999 EQUIPMENT													2	0.285	3	0.490								5	0.775
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
In	4	0	2	3	3	4	2	0	0	4	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
Out	4	0	2	3	3	1	1	2	2	1	1	2	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 723, 750, 751, 756, 763. TYPE MODIFICATION: K SHIPALT MODIFICATION TITLE: INSTALL HULL ACCESS PLATES OUTBOARD OF MISSILE TUBES 15 AND 16 SHIPALT SSN 3989K (5A118)

DESCRIPTION/JUSTIFICATION:

This alteration eliminates the need for hull cuts when accessing the upper VLS area for general preventive maintenance, proper preservation of components and future modifications. The alteration was originally budgeted for all 31 VLS ships and required material (steel was removed and was to be replaced with a composite-material plate. However it was later determined that all but five ships had the equivalent of the alteration accomplished without the composite material (the steel cut was modified into a removable plate). As a result the five remaining ships will have the alteration accomplished without the need for material.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RD&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT																									
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST																									
INSTALL COST													2	0.084			1	0.048	1	0.050				4	0.182
TOTAL PROGRAM														0.084				0.048		0.050					0.182

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: APPROX 5 to 8 SHIPS AMONG SSN719-725, 750-773 MODIFICATION TITLE: INSTALL HULL ACCESS PLATES OUTBOARD OF MISSILE TUBES 15 AND 16 SHIPALT SSN 3989K (5A118)

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 5 Months

CONTRACT DATES: FY 1997: _____

FY 1998: 11/97

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: 4/98

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT												2	0.084										2	0.084	
FY 2000 EQUIPMENT																1	0.048						1	0.048	
FY 2001 EQUIPMENT																			1	0.050				1	0.050
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
		0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0				0	4
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0				0	4

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750 TYPE MODIFICATION: FIELD CHANGE MODIFICATION TITLE: MISSILE TUBE CONTROL PANEL DRAIN INHIBIT FIX (5A118)

DESCRIPTION/JUSTIFICATION:

THIS MOD ALLOWS OPERATION OF THE OTHER TUBES IN A BANK WHEN A TUBE'S DIFFERENTIAL PRESSURE TRANSDUCER PRESSURE SWITCH FAILS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT											8	0.120											8	0.120	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST											8	0.120											8	0.120	
INSTALL COST													6	0.174	2	0.060							8	0.234	
TOTAL PROGRAM												0.120		0.174		0.060									0.354

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750

MODIFICATION TITLE: MISSILE TUBE CONTROL PANEL DRAIN INHIBIT FIX (5A118)

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT												6	0.174	2	0.060								8	0.234	
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	8
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	8

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 751,752,754,755,757,760-763,771 TYPE MODIFICATION: FIELD CHANGE MODIFICATION TITLE: TCP 5VDC POWER SUPPLY

DESCRIPTION/JUSTIFICATION:
 MOD FIXED A GROUNDING PROBLEM ON EB DIV - BUILT SHIPS SSN 751 AND LATER

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT											1	0.060	10	0.190										11	0.250
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST											1	0.060	10	0.190										11	0.250
INSTALL COST													1	0.029	5	0.075	5	0.100						11	0.204
TOTAL PROGRAM												0.060		0.219		0.075		0.100							0.454

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725,750 MODIFICATION TITLE: TCP 5VDC POWER SUPPLY SHIPALT (5A118)

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 4 Months

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT												1	0.029										1	0.029	
FY 2000 EQUIPMENT														5	0.075	5	0.100						10	0.175	
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	11	
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	2	1	1	1	2	0	0	0	0	0	11

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 751-773 PLUS 2 SHORE SITES TYPE MODIFICATION: KP SHIPALT MODIFICATION TITLE: TCP MAINTENANCE MODULAR SHIPALT

DESCRIPTION/JUSTIFICATION:
 THIS MOD FACILITATES MAINTENANCE OF THE TCP.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT											1	0.175	6	0.468	2	0.162	6	0.510	6	0.534	4	0.368	25	2.217	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST											1	0.175	6	0.468	2	0.162	6	0.510	6	0.534	4	0.368	25	2.217	
INSTALL COST												1	0.125	2	0.200	4	0.420	6	0.654	12	1.385	25	2.784		
TOTAL PROGRAM												0.175		0.593		0.362		0.930		1.188		1.753		5.001	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773 MODIFICATION TITLE: TCP MAINTENANCE MODULR SHIPALT (5A118)

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 6 Months

PRODUCTION LEADTIME: 8 Months

CONTRACT DATES: FY 1997: 4/96

FY 1998: 4/97

FY 1999: 4/98

DELIVERY DATE: FY 1997: 2/97

FY 1998: 2/98

FY 1999: 2/99

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT												1	0.125										1	0.125	
FY 2000 EQUIPMENT															2	0.200		4	0.420					6	0.620
FY 2001 EQUIPMENT																				6	0.654			6	0.654
FY 2002 EQUIPMENT																						6	0.701	6	0.701
FY 2003 EQUIPMENT																						6	0.684	6	0.684
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	2	2	0	0	3	3	0	0	12	
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	2	2	2	0	0	12	

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 751-773 PLUS 2 SHORE SITE TYPE MODIFICATION: KP SHIPALT MODIFICATION TITLE: TCP FOLLOW-ON UPGRADE

DESCRIPTION/JUSTIFICATION:

MOD WILL ACCOMPLISH SOME OR ALL OF THE RECOMMENDATIONS IN A 1992 SSN 688 CLASS PLANNING YARD REPORT THAT WERE NOT ACCOMPLISHED VIA SHIPALT 3939KP, WHICH ACCOMPLISHED 6 OF THE RECOMMENDATIONS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT														1	1.191	3	0.600	8	1.680	9	1.990	21	5.461		
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST														1	1.191	3	0.600	8	1.680	9	1.990	21	5.461		
INSTALL COST																1	0.216	3	0.486	17	2.862	21	3.564		
TOTAL PROGRAM															1.191		0.816		2.166		4.852		9.025		

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750 MODIFICATION TITLE: TCP FOLLOW-ON UPGRADE

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 8 Months

PRODUCTION LEADTIME: 12 Months

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT																									
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																	1	0.216						1	0.216
FY 2002 EQUIPMENT																			3	0.486				3	0.486
FY 2003 EQUIPMENT																						8	1.350	8	1.350
TO COMPLETE																						9	1.512	9	1.512

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	17	
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	17	

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750-752 TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: MFD 3/9 Position Indicator Stabilizer

DESCRIPTION/JUSTIFICATION:
 THIS MOD INSTALLS A STABILIZER TO PREVENT INADVERTENT BUMPING OF THE MFD 3/9 VALVES.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT							13	0.026															13	0.026	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST							13	0.026															13	0.026	
INSTALL COST											13	0.013											13	0.013	
TOTAL PROGRAM								0.026				0.013												0.039	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-752 MODIFICATION TITLE: MFD 3/9 Position Indicator Stabilizer

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT											13	0.013											13	0.013	
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT																									
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	0	0	0	0	0	0	0	0	0	4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	0	0	0	0	0	0	0	0	0	4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719, 720, 723-725, 750-773 TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: Test Pressure Station Adaptors

DESCRIPTION/JUSTIFICATION:

This alteration adds adaptors to existing hydraulic test pressure stations to facilitate Performance Monitoring Team (PMT) testing. During new construction several of the stations were installed such that testing is difficult or impossible. SSN 721 and 722 did not have stations installed during new construction, so testing on these ships is handled in a different manner.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT													29	0.174										29	0.174
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST													29	0.174										29	0.174
INSTALL COST														3	0.021	16	0.112	10	0.090					29	0.223
TOTAL PROGRAM														0.174		0.021		0.112		0.090					0.397

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719, 720, 723-725, 750-773 MODIFICATION TITLE: Test Pressure Station Adaptors

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1995 EQUIPMENT																								
FY 1996 EQUIPMENT																								
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT															3	0.021	16	0.112	10	0.090			29	0.223
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	4	4	4	4	3	3	2	2	0	29
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	4	4	4	4	3	3	2	2	0	29

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750-773. TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: Fairing Linkage Upgrade

DESCRIPTION/JUSTIFICATION:

This alteration modifies the VLS fairing to Muzzle Hatch connecting links with predominantly off-shelf hardware to provide increased accuracy of adjustment and eliminate potential binding and interference areas.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT													1	0.250	4	0.312	4	0.320	3	0.246	19	1.630	31	2.758	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST													1	0.250	4	0.312	4	0.320	3	0.246	19	1.630	31	2.758	
INSTALL COST															1	0.050	4	0.124	3	0.096	23	0.862	31	1.132	
TOTAL PROGRAM														0.250		0.362		0.444		0.342					1.398

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773. MODIFICATION TITLE: Fairing Linkage Upgrade

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____ FY 1998: _____ FY 1999: _____

DELIVERY DATE: FY 1997: _____ FY 1998: _____ FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT																									
FY 2000 EQUIPMENT															1	0.050								1	0.050
FY 2001 EQUIPMENT																	4	0.124						4	0.124
FY 2002 EQUIPMENT																			3	0.096	1	0.032		4	0.128
FY 2003 EQUIPMENT																					3	0.099		3	0.099
TO COMPLETE																					19	0.731		19	0.731

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	0	2	1	0	0	23	31
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	2	0	0	2	1	0	23	31

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: SSN 719-725, 750-773 TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: Hall Switch

DESCRIPTION/JUSTIFICATION:

This alteration replaces internal glass-body electromechanical reed switches with an electronic Hall Effect switch actuated by a single pole magnetic field to provide ease of manufacture, eliminate magnet rotational positioning of present magnets, and allow use of higher reliability magnets better suited to the environment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC	TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
<i>RDT&E</i>																							
<i>PROCUREMENT</i>																							
INSTALLATION KITS																							
INSTALLATION KITS NONRECURRING																							
EQUIPMENT																		1	0.100	30	2.208	31	2.308
EQUIPMENT NONRECURRING																							
ENGINEERING CHANGE ORDERS																							
DATA																							
TRAINING EQUIPMENT																							
SUPPORT EQUIPMENT																							
OTHER																							
OTHER																							
OTHER																							
INTERIM CONTRACTOR SUPPORT																							
PROCUREMENT COST																		1	0.100	30	2.208	31	2.308
INSTALL COST																				31	1.662	31	1.662
TOTAL PROGRAM																				0.100		3.870	3.970

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773 MODIFICATION TITLE: Hall Switch

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
PRIOR YEARS																										
FY 1995 EQUIPMENT																										
FY 1996 EQUIPMENT																										
FY 1997 EQUIPMENT																										
FY 1998 EQUIPMENT																										
FY 1999 EQUIPMENT																										
FY 2000 EQUIPMENT																										
FY 2001 EQUIPMENT																										
FY 2002 EQUIPMENT																										
FY 2003 EQUIPMENT																							1	0.040	1	0.040
TO COMPLETE																						30	1.581	30	1.581	

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31				

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750-773. TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: Improved Hydraulic Lock Cylinder

DESCRIPTION/JUSTIFICATION:

This alteration provides improved shaft, clevis, and turnbuckle on the fairing cylinder and modifies the lock arm to improve ease of adjustment

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT																		1	0.050	30	0.886	31	0.936		
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST																		1	0.050	30	0.886	31	0.936		
INSTALL COST																				31	1.873	31	1.873		
TOTAL PROGRAM																				0.050		2.759		2.809	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773. MODIFICATION TITLE: Improved Hydraulic Lock Cylinder

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
PRIOR YEARS																										
FY 1995 EQUIPMENT																								0	0.000	
FY 1996 EQUIPMENT																										
FY 1997 EQUIPMENT																										
FY 1998 EQUIPMENT																										
FY 1999 EQUIPMENT																										
FY 2000 EQUIPMENT																										
FY 2001 EQUIPMENT																										
FY 2002 EQUIPMENT																										
FY 2003 EQUIPMENT																							1	0.045	1	0.045
TO COMPLETE																							30	1.828	30	1.828

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SSN 719-725, 750-773. TYPE MODIFICATION: KP ShipAlt MODIFICATION TITLE: Hydraulic Actuator Pipe Flange

DESCRIPTION/JUSTIFICATION:

This alteration adds pipe flanges to facilitate reinstallation of overhauled hydraulic actuators.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT																					31	2.960	31	2.960	
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
PROCUREMENT COST																					31	2.960	31	2.960	
INSTALL COST																					31	15.550	31	15.550	
TOTAL PROGRAM																						18.510		18.510	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SSN 719-725, 750-773. MODIFICATION TITLE: Hydraulic Actuator Pipe Flange

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: _____

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: _____

CONTRACT DATES: FY 1997: _____

FY 1998: _____

FY 1999: _____

DELIVERY DATE: FY 1997: _____

FY 1998: _____

FY 1999: _____

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																								0	0.000
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT																									
FY 1999 EQUIPMENT																									
FY 2000 EQUIPMENT																									
FY 2001 EQUIPMENT																									
FY 2002 EQUIPMENT																									
FY 2003 EQUIPMENT																									
TO COMPLETE																								31	2.960

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	31

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: MK-41 Vertical Launch Surface System TYPE MOD: MK-41 Vertical Launching Systems MOD TITLE: MK-41 Vertical Launching Systems ORDALTS
 DESCRIPTION/JUSTIFICATION:
 Various ORDALTS for providing launch capability for newer missile variants as well as greater reliability, operability and maintainability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1997 & Pri		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																							
<i>RDT&E</i>																						0	0.0
<i>PROCUREMENT</i>																							
INSTALLATION KITS																						0	0.0
INSTALLATION KITS NONRECURRING																							
EQUIPMENT	var	10.9	var	1.3	var	2.4	var	1.2	var	2.5	var	0.4	var	0	var	0.2	var	0.3	var	continuin	var	19	
EQUIPMENT NONRECURRING																							
ENGINEERING CHANGE ORDERS																							
DATA																							
TRAINING EQUIPMENT																							
SUPPORT EQUIPMENT																							
OTHER																							
OTHER TOOLING/TEST EQUIP				0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0					0.1
OTHER PRODUCTION				0.7		0.7		0.3		0.2		0.2		0.2		0.2		0.24					3.1
INTERIM CONTRACTOR SUPPORT				0.048		0.035		0.026		0.012		0.000		0.000		0.000		0.000					0.1
PROCUREMENT COST		10.9		2.2		3.1		1.5		2.7		0.6		0.2		0.5		0.5					22
INSTALL COST		0.0		0.4		0.8		0.8		1.1		0.6		0.2		0.1		0.1		continuing			4.3
TOTAL PROGRAM		10.9		2.6		4.0		2.3		3.9		1.2		0.5		0.6		0.6					27

P-1 SHOPPING LIST

CLASSIFICATION:
UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: DD963, CG-47 and DDG-51 Class MODIFICATION TITLE: MK-41 Vertical Launching Systems

INSTALLATION INFORMATION:
 METHOD OF IMPLEMENTATION: AIT
 ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: 18 Months
 CONTRACT DATES: FY 1997: various FY 1998: various FY 1999: various
 DELIVERY DATE: FY 1997: various FY 1998: various FY 1999: various

(\$ in Millions)

Cost:	Prior Years		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		FY 2006		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS	var	8.4																							
FY 1998 EQUIPMENT			var	0.4																					
FY 1999 EQUIPMENT					var																				
FY 2000 EQUIPMENT						var	0.8																		
FY 2001 EQUIPMENT								var																	
FY 2002 EQUIPMENT									var	0.6															
FY 2003 EQUIPMENT											var	0.2													
FY 2004 EQUIPMENT													var	0.1						var					
FY 2005 EQUIPMENT															var	0.1									
FY 2006 EQUIPMENT																					var	continuing			
TO COMPLETE																									

INSTALLATION SCHEDULE: Input=Delivery to the Facility, Output=Facility providing to Fleet, ready for issue

	FY 19 & Prior	FY 1997			FY 1998		FY 1999		FY 2000		FY 2001			FY 2002		FY 2003				TC	TOTAL
		1	2	4	1	3	1	3	4	1	3	4	2	3	1	2	3	4			
In	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: Ordnance Support Equipment								P-1 ITEM NOMENCLATURE/LINE ITEM # S/H 84U9 Strategic Platform Support Equipment/BLI#535500/#535506					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													
EQUIPMENT COST (In Millions)		A		\$2.3	\$3.0	\$9.4	\$4.6	\$10.4	\$8.6	\$2.2	\$4.7		\$45.2
SPARES COST (In Millions)													
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>Funding in this P-1 line provides for the procurement of TRIDENT Platform Support Equipment, specifically for ordnance support, ship alterations and test equipment for the TRIDENT Submarine and TRIDENT Refit Facility (TRIREFFAC) located at Naval Submarine Bases (Bangor, WA and Kings Bay, GA) and other support facilities. The TRIDENT program has shifted from its modernization phase to a program designed to maintain TRIDENT's capability to perform its defined mission. This will be accomplished via its Obsolete Equipment Replacement (OER) program.</p> <p>OBSOLETE EQUIPMENT REPLACEMENT (OER) - Replacement of existing ordnance hardware/software that though functional has become operationally obsolete, is no longer in production or supportable with spare parts, has a high failure rate, or is no longer cost effective to maintain. OER hardware/software changes would be expected to provide a significant cost savings in reduced maintenance costs and would use Commercial-Off-The-Shelf (COTS) Technology where ever possible as long as all technical requirements are met.</p> <p>INSTALLATION (ORDNANCE) - Provides funding for ordnance equipment installation (commenced FY98) resulting from the TRIDENT OER Program.</p>													

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System TRIDENT Defensive Weapons System			DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: Ordnance Support Equipment						ID Code A	P-1 ITEM NOMENCLATURE/SUBHEAD S/H 84U9 Strategic Platform Support Equipment/BLI#535500/#535506							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>N872</u>													
U9221	Equipment OER	A			\$2,258			\$2,960			\$9,212			
U9INS	Installation	A			\$0			\$0			\$147			
	Subtotal				\$2,258			\$2,960			\$9,359			
TOTAL					\$2,258			\$2,960			\$9,359			

CLASSIFICATION:

UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: Ordnance Support Equipment					C. P-1 ITEM NOMENCLATURE Strategic Platform Support Equipment U9221 Obsolete Equipment Replacement (OER)				February 1999		
									SUBHEAD		
			84U9								
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
<i>Fiscal Year (98)</i>											
CCS MK2 Block 1C	1	\$15	NAVSEA	N/A	WR	NUWC,Newport, RI	5/98	4/00	YES		
CCS MK2 Block 1C (P)	1	\$935	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	5/98	4/00	YES		
CCS MK2 Block 1C (SS)	1	\$771	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	5/98	4/00	YES		
CCS MK2 Block 1C (P)	1	\$389	NAVSEA	N/A	WR	NUWC,Newport, RI	7/98	4/00	YES		
CCS Sys Integ/Rev Test	1	\$148	NAVSEA	N/A	WR	NUWC,Newport, RI	5/98	4/00	YES		
<i>Fiscal Year (99)</i>											
CCS MK2 Block 1C (P)	1	\$1,623	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	2/99	4/01	YES		
CCS MK2 Block 1C (SS)	1	\$1,167	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	2/99	4/01	YES		
Trainer Unique Equip	*	\$170	NAVSEA	N/A	WR	NUWC,Newport, RI	2/99	1/02	YES		
<i>Fiscal Year (00)</i>											
CCS MK2 Block 1C (P)	2	\$1,377	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	12/99	4/02	YES		
CCS MK2 Block 1C (SS) Oper.	1	\$1,328	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	12/99	4/02	YES		
CCS MK2 Block 1C (SS) TRF	2	\$936	NAVSEA	N/A	CPFF	RSSD, Manassas, VA	12/99	4/02	YES		
CCS MK2 Block 1C (TUE)	*	\$2,970	NAVSEA	N/A	WR	NAWC TSD, Orlando FL	12/99	1/02	YES		
CCS MK2 Block 1C (JMCIS)	1	\$288	NAVSEA	N/A	WR	NUWC Newport, RI	12/99	4/02	YES		
D. REMARKS * - Procurement to support modification of TRIDENT Shore Sites and installation of shore based CCS MK2 Block 1C. Procures various components/technical support not broken out on this report.											

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE February 1999			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: Ordnance Support Equipment					C. P-1 ITEM NOMENCLATURE Strategic Platform Support Equipment U9INS Installation				SUBHEAD 84U9	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u><i>Fiscal Year (98)</i></u> None										
<u><i>Fiscal Year (99)</i></u> None										
<u><i>Fiscal Year (00)</i></u> CCS MK2 Block 1C	1	\$147	NAVSEA	N/A	WR	NUWC,Newport, RI	12/99	4/00	YES	
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
TRIDENT Defensive Weapons System (CCS
 MODELS OF SYSTEM AFFECTED: **MK2 Mod3//DWS MK118 OER Upgrade)** TYPE MODIFICATION: **Obsolete Equipment Replacement** MODIFICATION TITLE: **CCS MK2 Block 1C Upgrade on Ohio Class Submarines**

DESCRIPTION/JUSTIFICATION:

Replace obsolete equipment and achieve optimum commonality among submarine combat systems.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

OPEVAL = 7/94

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>						2.6		3.4																	6.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT					1	1.4	1	1.63	2	2.8														4	5.8
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT							1	1.2	1	1.3														2	2.5
SUPPORT EQUIPMENT			1	0.6	1	0.8			2	1.87														4	3.27
OTHER							*	0.17	*	2.97															3.14
OTHER									*	0.29															0.29
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
INSTALL COST									2	0.15														2	0.15
TOTAL PROCUREMENT			1	0.6	2	2.2	2	3.0	5	9.4														10	15.2

P-1 SHOPPING LIST

CLASSIFICATION:

Note #1 Shows installation cost for 3 units procured.
 1 unit covered by STF Norfolk.

UNCLASSIFIED

**** - Procurement to support modification of TRIDENT Shore Sites and installation of shore based CCS MK2 Block 1C. Procures various components/technical support not broken out on this report.**

P3A (Continued) INDIVIDUAL MODIFICATION (Continued)

**TRIDENT Defnsive Weapons System
(CCS MK2 Mod 3/DWS MK118 OER Upgrade)**

MODELS OF SYSTEMS AFFECTED: _____ MODIFICATION TITLE: CCS MK2 Block 1C Upgrade on OHIO Class Submarines

INSTALLATION INFORMATION:
 METHOD OF IMPLEMENTATION: Engineered Availabilities/Refit Periods
 ADMINISTRATIVE LEADTIME: 12 Months PRODUCTION LEADTIME: 24 Months
 CONTRACT DATES: **FY 1998:** _____ **FY 1999:** _____ **FY 2000:** 12/99
 DELIVERY DATE: **FY 1998:** _____ **FY 1999:** _____ **FY 2000:** 4/02

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS																									
FY 1995 EQUIPMENT																									
FY 1996 EQUIPMENT																									
FY 1997 EQUIPMENT																									
FY 1998 EQUIPMENT									2	Note a 0.15													2	0.15	
FY 1999 EQUIPMENT												1												0	0.00
FY 2000 EQUIPMENT																								0	0.00
FY 2001 EQUIPMENT																								0	0.00
FY 2002 EQUIPMENT																								0	0
FY 2003 EQUIPMENT																								0	0.00
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES (Not Applicable To Shore Sites)

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Out	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

- Note #1** CCS MK2 Block 1C installation cost covered under ARCI/CCS MK 2 Block 1C installation during D-5 Conversion Period (SSBNs 730-733).
- Note a** Shows installation cost for 2 unit procured in FY98, 1 unit covered by Note #1. (SSBN 732)
- Note b** No installation cost for 1 unit procured in FY99, this unit covered by Note #1. (SSBN 733)
- Note c** Shows installation cost for 3 units procured in FY02, 1 unit covered by Note #1. (SSBN 730)
- Note d** Shows installation cost for 4 units procured in FY03, 1 unit covered by Note #1. (SSBN 731)
- Note #2** Shows installation costs for 3 units procured in FY01. 1 unit covered by STF Norfolk.

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BUDGET ITEM JUSTIFICATION SHEET						DATE FEB 99																														
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BUDGET ACTIVITY 4				P-1 ITEM NOMENCLATURE STRATEGIC MISSILE SYSTEMS EQUIPMENT (535800)																																
	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05																												
QUANTITY																																				
Cost (in millions)	\$219.4	\$277.5	\$239.5	\$162.7	\$193.8	\$105.5	\$212.4	\$196.5																												
<p>The SSP funding in this P-1 line provides for the procurement of Strategic Weapon System (SWS) equipment for deployed SSBNs and shore support sites to support the TRIDENT program.</p> <p style="text-align: center;">OTHER MATERIAL SUPPORT</p> <p>A broad range of other material support equipment must be procured for deployed SSBNs, shore installations and contractor facilities. Included within this category are general and special purpose test equipment, launcher expendables, navigation principal items, test instrumentation in support of missile flight tests, missile checkout equipment and weapons system operation and evaluation equipment. Amounts included within this P-1 line for this category are subdivided as follows:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 1998</u></th> <th style="text-align: center;">(\$000) <u>FY 1999</u></th> <th style="text-align: center;"><u>FY 2000</u></th> </tr> </thead> <tbody> <tr> <td>Launcher and Handling Equipment</td> <td style="text-align: right;">\$1,400</td> <td style="text-align: right;">\$0</td> <td style="text-align: right;">\$0</td> </tr> <tr> <td>Fire Control Equipment</td> <td style="text-align: right;">\$500</td> <td style="text-align: right;">\$3,500</td> <td style="text-align: right;">\$1,970</td> </tr> <tr> <td>Navigation Equipment</td> <td style="text-align: right;">\$4,800</td> <td style="text-align: right;">\$1,000</td> <td style="text-align: right;">\$2,200</td> </tr> <tr> <td>Instrumentation/Missile Checkout Equipment</td> <td style="text-align: right;">\$9,200</td> <td style="text-align: right;">\$3,622</td> <td style="text-align: right;">\$400</td> </tr> <tr> <td>Weapons System Operation and Evaluation Equipment</td> <td style="text-align: right;"><u>\$1,100</u></td> <td style="text-align: right;"><u>\$378</u></td> <td style="text-align: right;"><u>\$400</u></td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right;">\$17,000</td> <td style="text-align: right;">\$8,500</td> <td style="text-align: right;">\$4,970</td> </tr> </tbody> </table> <p>Launcher and Handling Equipment: Prior year funding provided for the procurement of TRIDENT II launch tube closures required to replace like items expended during the conduct of TRIDENT II flight test program requirements [Demonstration and Shakedown Operations (DASOs) and Follow-on CINC Evaluation Tests (FCETs)].</p> <p>Fire Control Equipment: Funding in FY 1998-FY2000 provides for Capital Maintenance Projects at NIROP Pittsfield, MA essential to correct environmental, safety and energy conservation deficiencies.</p>										<u>FY 1998</u>	(\$000) <u>FY 1999</u>	<u>FY 2000</u>	Launcher and Handling Equipment	\$1,400	\$0	\$0	Fire Control Equipment	\$500	\$3,500	\$1,970	Navigation Equipment	\$4,800	\$1,000	\$2,200	Instrumentation/Missile Checkout Equipment	\$9,200	\$3,622	\$400	Weapons System Operation and Evaluation Equipment	<u>\$1,100</u>	<u>\$378</u>	<u>\$400</u>	TOTAL	\$17,000	\$8,500	\$4,970
	<u>FY 1998</u>	(\$000) <u>FY 1999</u>	<u>FY 2000</u>																																	
Launcher and Handling Equipment	\$1,400	\$0	\$0																																	
Fire Control Equipment	\$500	\$3,500	\$1,970																																	
Navigation Equipment	\$4,800	\$1,000	\$2,200																																	
Instrumentation/Missile Checkout Equipment	\$9,200	\$3,622	\$400																																	
Weapons System Operation and Evaluation Equipment	<u>\$1,100</u>	<u>\$378</u>	<u>\$400</u>																																	
TOTAL	\$17,000	\$8,500	\$4,970																																	

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P-1 SHOPPING LIST
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EXHIBIT P-40 BUDGET JUSTIFICATION SHEET

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BUDGET ITEM JUSTIFICATION SHEET	DATE FEB 99
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APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BUDGET ACTIVITY 4	P-1 ITEM NOMENCLATURE STRATEGIC MISSILE SYSTEMS EQUIPMENT (535800)
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Navigation Equipment: Funding is required for procurement of critical components essential to maintain configuration control and equipment reliability and replacement of worn or damaged items of inertial test equipment used at contractors' plants to support test, evaluation, and analysis of inertial instruments and systems.

Instrumentation/Missile Test Equipment: Funding provides for shorebased and shipboard test instrumentation equipment in support of missile flight tests and for procurement of surface support equipment end items to support replacement requirements generated by fleet-related tactical activities.

Weapon System Operation and Evaluation Equipment: The funding profile provides for replacement of weapon system evaluation equipment which is becoming insupportable as a result of component obsolescence.

ALTERATIONS

Alterations to non-flying tactical hardware are continuing requirements for the Strategic Weapons Systems. Alterations (SPALTs) entail the application of available technology to eliminate personnel safety hazards, correct design deficiencies, maintain system effectiveness by resolving equipment operability problems, and achieve logistic economies. SPALT estimates include both known alterations related to resolution of specific problems as well as calculated, formula-generated alterations based on recent experience. Amounts included in this P-1 line for alterations are subdivided as follows:

	(\$000)		
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
Launcher and Handling	\$12,194	\$9,480	\$6,044
Fire Control	\$4,910	\$3,687	\$55,500
Navigation	\$7,884	\$12,034	\$31,400
Instrumentation/Missile Checkout	<u>\$899</u>	<u>\$6,162</u>	<u>\$4,100</u>
TOTAL	\$25,887	\$31,363	\$97,044

Funding is required to procure formula generated alterations to the Strategic Weapons System launcher and fire control subsystems; to inertial, non-inertial, and Electrostatically Supported Gyro Navigator (ESGN) navigation subsystem equipment on deployed SSBNs and installed at supporting shore facilities, including the Trident Training Facility (TTF), Bangor, TTF, Kings Bay, the Ashore Navigation Center, and the Inertial System Test Laboratory; to test instrumentation used on SSBNs, support ships and at the Eastern Test Range, the TRIDENT Refit Facility (TRF), Bangor, and TRF Kings Bay; and to missile handling equipment, missile test and readiness equipment, and surface support equipment. Installation of approved SPALTs is performed on a turnkey basis in conjunction with the procurement of equipment. The use of Commercial-off-the-Shelf Non-Developmental Items (COTS/NDI) has been initiated and is being implemented in all subsystems, wherever possible.

Funding is included in FY 2000 for Fire Control alterations to assure a single configuration of TRIDENT II Strategic Weapons System (SWS). The same MK-98 Mod 4, COTS/NDI-based, open-system-architecture Fire Control System scheduled for installation on the four Pacific-based TRIDENT I SSBNs to be backfitted to TRIDENT II capability will be installed on the ten Atlantic-based TRIDENT II SSBNs that presently carry the MK-98 Mod 1 version.

BUDGET ITEM JUSTIFICATION SHEET	DATE FEB 99
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APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BUDGET ACTIVITY 4	P-1 ITEM NOMENCLATURE STRATEGIC MISSILE SYSTEMS EQUIPMENT (535800)
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TRAINING

This category provides for procurement of, and alterations to, both tactical and non-tactical equipment required at submarine training facilities to train personnel in the operation and maintenance of launcher and handling, fire control, navigation, missile checkout, and sonar subsystems. Each training facility consists of an integrated family of system and unit laboratories which interfaces with a central stimulation complex to provide complete and realistic training for replacement and off crew personnel, both officer and enlisted, as required for manning of SSBNs and shore facilities. Funding in FY 1998-FY 2000 is budgeted to procure training unique equipment required as the result of SPALTs to SWS tactical equipment. Amounts included in this P-1 line for training are as follows:

	<u>FY 1998</u>	(\$000) <u>FY 1999</u>	<u>FY 2000</u>
Training Support Equipment	\$6,503	\$6,600	\$3,700

TRIDENT II (D-5) BACKFIT

Beginning in FY 2000, four 726-Class TRIDENT I (C-4) submarines will be backfitted to TRIDENT II (D-5) configuration during their regularly scheduled overhauls. OPN funding for this effort supports procurement of TRIDENT II (D-5) weapons system equipment required to replace C-4 equipment. FY 1998 - FY 2000 funding supports production, on a leadtime-from-need basis, of TRIDENT II SWS subsystem and training equipment.

	<u>FY 1998</u>	(\$000) <u>FY 1999</u>	<u>FY 2000</u>
	\$170,000	\$231,000	\$133,800

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WEAPON SYSTEM COST ANALYSIS							DATE:
EXHIBIT (P-5) PROGRAM COST BREAKDOWN							FEB 99
A. APPROPRIATION/BUDGET ACTIVITY				P-1 ITEM NOMENCLATURE/SUBHEAD			
OPN BA-4: ORDNANCE SUPPORT EQUIPMENT				STRATEGIC MISSILE SYSTEMS EQUIPMENT/34U9			
TOTAL COST IN THOUSANDS OF DOLLARS							
WEAPON SYSTEM COST ELEMENTS	Ident. Code	FY 98 Qty	TOTAL COST	FY 99 Qty	TOTAL COST	FY 00 Qty	TOTAL COST
OTHER MATERIAL SUPPORT			17,000		8,500		4,970
ALTERATIONS			25,887		31,363		97,044
TRAINING			6,503		6,600		3,700
TRIDENT II BACKFIT			170,000		231,000		133,800
TOTAL			219,390		277,463		239,514

P-1 Shopping List

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CLASSIFICATION: **UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEBRUARY 1999		
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY 4 - ORDNANCE SUPPORT EQUIPMENT									P-1 ITEM NOMENCLATURE/LINE ITEM # ANTI-SHIP MISSILE DECOY SYSTEMS/5530				
Program Element for Code B Items: 0604755N, Project Number: K2190									OTHER RELATED PROGRAM ELEMENTS N/A				
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total	
QUANTITY												0	
EQUIPMENT COST (In Millions)	N/A	B	\$16.4	\$22.0	\$20.4	\$19.6	\$17.9	\$17.7	\$18.1	\$19.2	N/A	\$151.3	
SPARES COST (In Millions)	N/A		\$0.15	\$0.5	\$0.41	\$0.42	\$0.10	\$0.56	\$0.2	\$0.2	N/A	\$2.5	
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>JUSTIFICATION: The Anti-Ship Missile Decoy Program covers a family of decoys and the equipment to deploy them. It is an essential element of the Anti-Ship Missile Defense (ASMD) tactics to counter the threat of enemy homing missiles. Equipment funded under this line includes:</p> <p>NULKA: This line contains various equipment and subsystems for a system which will provide the capability to defeat the effectiveness of hostile Anti-Ship cruise missiles. Currently Nulka is scheduled to be installed on the following ship classes: DD 963, DDG 51, CG 47, LSD 41, LPD 17, and DD 21. The installation will be performed during a limited availability by shipalt. Final installation plans will be made upon maturation of ship installation design.</p> <p>(a) Decoys and launching system equipment. An active off-board Anti-Ship Missile Decoy System. (b) Production Engineering Support.</p> <p>Nulka is a joint program with the Australians, who have made the decision to proceed with outfitting into their combatants. Initial Operational Testing of Nulka was completed in December 1992, with COMOPTEVFOR recommending limited fleet introduction and continued development. Nulka is currently in the final stage of development with initial production decision approved April 1997. Production contract award for the decoy was made in June 1997. An initial production decision for the launch system was received in March 1998 with award in June 1998. Nulka underwent TECHEVAL and OPEVAL in July/August 1998 with a full production decision planned for February 1999.</p> <p>EQUIPMENT INSTALLATION: Funding is for the installation of equipment, including Fleet Modernization Program Installs, and installation of equipment at shore facilities.</p>													

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5							Weapon System			DATE: FEBRUARY 1999				
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY/BA-4 - ORDNANCE SUPPORT EQUIPMENT						ID Code B	P-1 ITEM NOMENCLATURE/SUBHEAD ANTI-SHIP MISSILE DECOY SYSTEMS/A4VV							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>N86</u> EQUIPMENT													
VV001	NULKA SYSTEMS	B	5	958	4,789	11	529	5,815	8	530	4,240			
VV002	NULKA DECOYS	B	18	240	4,317	38	240	9,128	36	255	9,180			
VV003	Engineering Changes and Logistics Suppt				4,451			4,005			2,190			
	Engineering Changes				(2,378)			(1,505)			(1,121)			
	Logistics Support				(2,073)			(2,500)			(1,069)			
	ASMD Non-Recurring													
VV830	Production Engineering				1,700			1,674			1,600			
VVINS	INSTALL Installation (FMP)				1,113			1,422			3,236			
TOTAL PROGRAM							16,370			22,043			20,446	0

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P-1 SHOPPING LIST

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)	Weapon System	A. DATE FEBRUARY 1999
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B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY/BA-4 - ORDNANCE SUPPORT EQUIPMENT	C. P-1 ITEM NOMENCLATURE ANTI-SHIP MISSILE DECOY LAUNCHING SYSTEM	SUBHEAD A4VV
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Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<i>FISCAL YEAR 98</i>										
VV001 (Systems)	5	958			FP	Sippican, MASS	6/98	7/99	YES	
VV002 (Decoys)	18	240			FP	BAeA, Australia	10/98	6/99	YES	
<i>FISCAL YEAR 99</i>										
VV001 (Systems)	11	529			FP	Sippican, MASS	1/99	12/99	YES	
VV002 (Decoys)	38	240			FP	BAeA, Australia	2/99	11/99	YES	
<i>FISCAL YEAR 00</i>										
VV001 (Systems)	8	530			FP	Competitive	1/00	12/00	YES	
VV002 (Decoys)	36	255			FP	BAeA, Australia	12/99	8/00	YES	

D. REMARKS

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: None - Original Installations TYPE MODIFICATION: _____ MODIFICATION TITLE: NULKA

DESCRIPTION/JUSTIFICATION:
 Launching system modifications to support NULKA Decoy.
 * Qty (1) trainer procurement with install cost included.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: _____

FINANCIAL PLAN (IN MILLIONS)	Prior Yrs	FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
<i>RDT&E</i>	3/58	102.5	0	6.1	0	7.7	0	4.3	0	1.4	0	1.1	0	0.6	0	1.1	0	1.1	0	1.1			3/58	127.0
<i>PROCUREMENT</i>																								
INSTALLATION KITS			1	0.97	5	4.8	11	5.8	8	4.2	9	4.8	7	3.8	9	4.9	8	4.4	8	4.4	33	17.3	88	55.4
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING				0.37		0.37																		0.7
ENGINEERING CHANGE ORDERS																								0.0
UNIT COST DATA FOR EQUIPMENT				0.59		0.59		0.53		0.53		0.53		0.54		0.54		0.55		0.55				0.0
TRAINING EQUIPMENT			1*	0.96																			1	0.97
SUPPORT EQUIPMENT																								0.0
OTHER (DECOYS)			52	13.0	18	4.3	38	9.1	36	9.2	29	7.5	25	6.3	33	5.9	25	6.5	28	7.3	420	109.2	704	178.3
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								
PROCUREMENT COST			54	14.9	23	9.1	49	14.9	44	13.4	38	12.3	32	10.1	42	10.8	33	10.9	36	11.7	453	126.5	792	234.6
INSTALL COST				2.1		1.11	3	1.42	9	3.24	9	3.43	8	3.84	11	3.72	7	3.60	9	3.73	32	14.6	88	40.8
TOTAL PROGRAM				17.0		10.2		16.3		16.6		15.7		13.9		14.5		14.5		15.4		141.1		275.4

P-1 SHOPPING LIST

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P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: None. Original Installations MODIFICATION TITLE: NULKA

INSTALLATION INFORMATION:
 METHOD OF IMPLEMENTATION: SHIPALT
 ADMINISTRATIVE LEADTIME: 6 Months
 CONTRACT DATES: FY 1997: June 1998
 DELIVERY DATE: FY 1997: July 1999

PRODUCTION LEADTIME: 13 Months
 FY 1998: June 1998 **FY 1999: January 1999
 FY 1998: August 1999 **FY 1999: December 1999

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1997 EQUIPMENT						1.11		* 2	0.32															1.43
FY 1998 EQUIPMENT								2	1.00	3	0.99													1.99
FY 1999 EQUIPMENT										6	1.92	5	1.56											3.48
FY 2000 EQUIPMENT									0.10		0.27	4	1.44	4	1.32									3.13
FY 2001 EQUIPMENT											0.05		0.35	4	2.05	5	1.37							3.82
FY 2002 EQUIPMENT												0.08		0.40	5	1.93	2	0.56						2.97
FY 2003 EQUIPMENT														0.07		0.35	5	2.24	4	1.18				3.84
FY 2004 EQUIPMENT																0.07		0.80	5	1.86	3	0.90		3.63
FY 2005 EQUIPMENT																				0.69	8	2.90		3.59
TO COMPLETE																					21	7.80		7.80

* Qty (1) trainer procurement with install cost included

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	Prior Years	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	0	0	0	0	1	3	2	1	2	4	2	2	1	4	2	2	0	4	2	2	2	4	0	1	1	5	3	1	0	5	3	29	88
Out	0	0	0	0	0	0	0	1	3	2	1	2	4	2	2	1	4	2	2	0	4	2	2	2	4	0	1	1	5	3	1	0	5	32	88

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BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 1999			
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # SSN COMBAT CONTROL SYSTEM BLI: 542000 SBHD: H4VB					
Program Element for Code B Items: 0604562N								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY	N/A			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
EQUIPMENT COST (In Millions)		B		\$18.9	\$17.4	\$26.1	\$23.5	\$31.0	\$39.4	\$49.3	\$78.2		\$283.8
SPARES COST (In Millions)													
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p><u>FCS MK 117/CCS MK 1 IMPROVEMENTS (VB011)</u> Engineering Changes/Auxiliary Equipment (VB011) - Provides for the procurement of Engineering Changes (EC) and Ordnance Alterations (ORDALT) to correct fleet reported problems; Reliability, Maintainability, and Availability (RM&A) deficiencies, and Safety issues associated with in-service SSN/SSBN Combat Control System components and Fire Control System components and interface Equipments, interfacing systems and peripheral or special equipment. Examples include: corrections to Weapons Control Console power supplies; keyboard printer replacements; Vertical Launch System suite improvements to satisfy Environmental Stress Screening (ESS) deficiencies; and correction of RM&A deficiencies of the Mk 92 Attack Control Console.</p>													
<p><u>CCS OBSOLETE EQUIPMENT REPLACEMENT (OER) PROGRAM (VB034)</u> The SSN Combat System OER Program (VB034) - Mandated by OPNAV to achieve maximum commonality onboard SSN 688 Class, SSN 751 Flight and SSBN 726 Class submarines. The CCS OER program is commonly referred to as the Combat Control System (CCS) Mk 2 Program D0. A competitive contract was awarded for CCS Mk 2, on a Firm Fixed Price basis in September 1988. Production options extended through fiscal year 1992. For FY93, a one year Sole Source Fixed Price contract to the incumbent (Raytheon Submarine Signal Division) was awarded.</p> <p>Contractual efforts included standardization of hardware and software; improved reliability, maintainability and operability; a reduced number of system configurations; improved operational capabilities; and overall reduced Life Cycle Cost. The OER program will replace obsolete and unreliable equipment and will achieve optimum commonality among submarine combat systems by incorporating the AN/UJK-43 Navy Standard Computer with Embedded Memory Subsystem (EMS) to replace the AN/UJK-7 computer; replacing the obsolete input/output device with a new, more reliable keyboard printer; adding a parallel processor for Over The Horizon Targeting and adding new Common Display Consoles to replace obsolete Standard Information Displays (onboard SSBNs) and MK 81 Weapon Control Consoles (onboard SSNs). Additionally, the new Tactical Weapons Simulator replaces both the Mk 75 Digital Missile Simulator and the Mk 22 Weapon Simulator, saving space and weight, while improving reliability and logistics support.</p> <p>In FY 97 and beyond the OER program will consist of CCS Mk2 Block 1C upgrade kits which will maximize the use of commercial electronics and NDI standard products, reducing procurement and life cycle costs while providing an open architecture for future growth. Combat control display processors will be replaced with Navy standard commercial technology. TAC-X computers will be procured and integrated with the Combat Control System via fiber optic local area network; commercial electronics will also be procured and packaged to replace the Data Transfer System (DTS), AN/UGC-136 keyboard printer and the Tactical Weapons Simulator (TWS).</p>													

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # SSN COMBAT CONTROL SYSTEM BLI: 542000 SBHD: H4VB	
<p><u>PRODUCTION SUPPORT (VB033)</u> This account (VB033) procures technical data, maintenance data, mock-ups, demonstrations and testing products directly for the SSN Combat System Obsolete Equipment Replacement (OER) program. Also procured are services required to support production engineering, quality assurance, product improvement and acceptance testing for production line items. Technical on-site support at shipyards and depots for hardware related problems is also included.</p> <p><u>LOGISTIC SUPPORT REQUIREMENTS (VB900)</u> This account (VB900) procures engineering and technical support at the organic depot (NUWC Division, Keyport) for equipment maintenance and overhauls. Also procured are engineering services which perform essential documentation updates related to major hardware revisions. VB900 also procures laboratory hardware requirements including Generalized Simulation/Stimulation (GSS) hardware and auxiliary testing and operating equipment.</p> <p><u>INITIAL TRAINING (VB995)</u> This account funds the initial factory training including both training deliverables and instructional services to familiarize the initial cadre of instructional personnel with an end item. Also included is the cost of preparation of training packages through the Ready-for-Training (RFT) date.</p> <p><u>CONSULTING SERVICES (VB983)</u> This account provides assistance for asset management, cost analyses, ORDALT planning, preparation of contract specifications, monitoring of contract deliverables, prime contractor cost, schedule and performance monitoring, ILS planning and GFI coordination.</p> <p><u>EQUIPMENT INSTALLATION (VB5NS)</u> Funds are for the installation of Combat Control System equipments included in the Fleet Modernization Program. The budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policy FY 98 and out. Funds are included in FY 2000 for the installation of AN/UYQ-70.</p> <p><u>OTHER INFORMATION</u> Developmental efforts are funded by Program Element 64562N within the SSN Combat Control System Improvement Program F0236. CCS Mk 2 is a functionally equivalent software program (Program D0) that rehosted and repackaged the CCS Mk1 program into a program capable of cost effective updating and software maintenance for SSN 688 and TRIDENT CLASS submarines. CNO direction to install a functionally equivalent Combat System was given per CNO letter 5000 Ser 02/7U384408 dtd 09 July 1987. On 28 May 1996, the CCS MK2 Block 1C program received Milestone II approval and is under development with Raytheon Electronic Systems. The total procurement objective for the SSN COMBAT CONTROL SYSTEM budget is to outfit 44 SSN submarines, 1 Maintenance Trainer, and 4 Team Trainers with CCS Mk2 Block 1C.</p>		

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE:					
P-5									February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAC SSN COMBAT CONTROL SYSTEM BLI: 542000 SBHD: H4VB							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>N87 SUBMARINES</u>													
VB011	<u>FCS MK117/CCS MK1 IMPROVEMENTS</u> ECP/Auxiliary Equipment	A			\$500			\$511			\$1,367			
					\$500			\$511			\$1,367			
VB034	<u>CCS OER PROGRAM MODS</u> CCS MK2 Block 1C Upgrade Kits AN/BSG-1	B	7	\$1,525.1	\$10,676	3	\$2,483.3	\$7,450	4	\$2,683.0	\$10,732			
					\$10,676			\$7,450			\$10,732			
VB033	PRODUCTION SUPPORT				\$1,527			\$1,561			\$1,595			
VB900	CONSULTING SERVICES				\$1,016			\$1,038			\$1,061			
VB983	LOGISTICS SUPPORT				\$3,074			\$3,903			\$3,653			
VB995	INITIAL TRAINING				\$114			\$397			\$1,605			
	MATERIAL TOTAL				\$16,907			\$14,860			\$20,013			
VB5NS	EQUIPMENT INSTALLATION (FMP)				\$2,010			\$2,527			\$6,043			
TOTAL					\$18,917			\$17,387			\$26,056			

CLASSIFICATION: **UNCLASSIFIED**

B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SSN COMBAT CONTROL SYSTEM				A. DATE February 1999	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u>CCS MK2 OER</u>										
BLOCK 1C UPGRADES (FY98)	7	1,525.1	NAVSEA		SS/FP	RAYTHEON ELECTRONIC SYSTEMS Portsmouth, RI	04/98	03/99	YES	
BLOCK 1C UPGRADES (FY99)	3	2,483.3	NAVSEA		SS/FP	RAYTHEON ELECTRONIC SYSTEMS Portsmouth, RI	03/99	11/00	YES	
BLOCK 1C UPGRADES (FY00)	4	2,683.0	NAVSEA		SS/FP	RAYTHEON ELECTRONIC SYSTEMS Portsmouth, RI	03/00	11/01	YES	
D. REMARKS										
A CCS MK2 Block 1C upgrade will maximize use of commercial electronics and NDI standard products. TAC-X computers will be procured and integrated with the Combat Control System via fiber optic local area network and commercial electronics will be procured and packaged to replace the Data Transfer System (DTS), AN/UGC-136 keyboard printer and the Tactical Weapons Simulator (TWS).										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 SSN COMBAT CONTROL SYSTEM (H4VB / 54200)
 MODELS OF SYSTEM AFFECTED: CCS MK2 D0/1A/B to CCS MK2 D0 Block 1C TYPE MODIFICATION: UPGRADE MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEMS

DESCRIPTION/JUSTIFICATION:
 This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 7/99; OPEVAL 10/99; MILESTONE III 05/00

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		IC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									\$0.0
<i>PROCUREMENT</i>																									\$0.0
INSTALLATION KITS																									\$0.0
INSTALLATION KITS NONRECURRING																									\$0.0
EQUIPMENT			1	\$1.3	2	\$2.8																	3	\$4.1	
EQUIPMENT NONRECURRING																									\$0.0
ENGINEERING CHANGE ORDERS																									\$0.0
DATA																									\$0.0
TRAINING EQUIPMENT					3	\$2.8																	3	\$2.8	
SUPPORT EQUIPMENT																									\$0.0
OTHER																									\$0.0
OTHER																									\$0.0
INTERIM CONTRACTOR SUPPORT																									\$0.0
ORDALT INSTALLATION																									\$0.0
INSTALL COST							1	\$1.1	2	\$2.2													3	\$3.3	
TOTAL PROCUREMENT	0	\$0.0	1	\$1.3	5	\$5.6	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	6	\$6.9	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: CCS MK2 D0/1A/B to CCS MK2 D0 Block 1C MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEMS

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: _____

PRODUCTION LEADTIME: 20-24 Months

CONTRACT DATES: FY 1998: Apr-98 FY 1999: Mar-99 FY 2000: Mar-00 FY 2001: Mar-01

DELIVERY DATE: FY 1998: Nov-99 FY 1999: Nov-00 FY 2000: Nov-01 FY 2001: Nov-02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1997 EQUIPMENT							1	1.14															1	1.14
FY 1998 EQUIPMENT									2	2.16													2	2.16
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0.00
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0.00
FY 2003 EQUIPMENT																							0	0
FY 2004 EQUIPMENT																							0	0
FY 2005 EQUIPMENT																							0	0
TO COMPLETE																							0	0

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Out	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

P-3A

This exhibit shows SSN installations only. No trainer installations are shown.

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 SSN COMBAT CONTROL SYSTEM (H4VB / 54200)
 MODELS OF SYSTEM AFFECTED: AN/BSY-1 to CCS MK2 D0 Block 1C TYPE MODIFICATION: UPGRADE MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEMS

DESCRIPTION/JUSTIFICATION:

This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 7/99 OPEVAL 10/99; MILESTONE III 05/00

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																									\$0.0
<i>PROCUREMENT</i>																									\$0.0
INSTALLATION KITS																									\$0.0
INSTALLATION KITS NONRECURRING																									\$0.0
EQUIPMENT			1	\$2.3	2	\$5.0	3	\$7.5	4	\$10.7													10	\$25.5	
EQUIPMENT NONRECURRING																									\$0.0
ENGINEERING CHANGE ORDERS																									\$0.0
DATA																									\$0.0
TRAINING EQUIPMENT																							0	\$0.0	
SUPPORT EQUIPMENT																									\$0.0
OTHER																									\$0.0
OTHER																									\$0.0
INTERIM CONTRACTOR SUPPORT																									\$0.0
ORDALT INSTALLATION																									\$0.0
INSTALL COST							1	\$1.4	2	\$2.7													3	\$4.1	
TOTAL PROCUREMENT	0	\$0.0	1	\$2.3	2	\$5.0	3	\$7.5	4	\$10.7	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	10	\$25.5	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AN/BSY-1 to CCS MK2 D0 Block 1C MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEMS

INSTALLATION INFORMATION: _____

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: _____ PRODUCTION LEADTIME: 20-24 Months

CONTRACT DATES: FY 1998: Apr-98 FY 1999: Mar-99 FY 2000: Mar-00 FY 2001: Mar-01

DELIVERY DATE: FY 1998: Nov-99 FY 1999: Nov-00 FY 2000: Nov-01 FY 2001: Nov-02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1997 EQUIPMENT							1	1.39															1	1.39
FY 1998 EQUIPMENT									2	2.68													2	2.68
FY 1999 EQUIPMENT																							0	0.00
FY 2000 EQUIPMENT																							0	0.00
FY 2001 EQUIPMENT																							0	0.00
FY 2002 EQUIPMENT																							0	0.00
FY 2003 EQUIPMENT																							0	0
FY 2004 EQUIPMENT																							0	0
FY 2005 EQUIPMENT																							0	0
TO COMPLETE																							0	0

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1998 & Prior	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	1	0	0	0	1	1	0	0	3	0	0	1	2	1	0	0	3	0	1	1	2	0	0	1	1	1	1	0	21
Out	0	0	0	1	0	0	0	1	1	0	0	3	0	0	1	2	1	0	0	3	0	1	1	2	0	0	1	1	1	1	21

P-3A

This exhibit shows SSN installations only. No trainer installations are shown.

CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 SSN COMBAT CONTROL SYSTEM (H4VB / 54200)
 MODELS OF SYSTEM AFFECTED: CCS MK1 to CCS MK2 D0 Block 1C TYPE MODIFICATION: UPGRADE MODIFICATION TITLE: SSN COMBAT CONTROL SYSTEMS

DESCRIPTION/JUSTIFICATION:

This program replaces obsolete equipment and will achieve optimum commonality among submarine combat systems while maximizing the use of commercial electronics and NDI products.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MILESTONE II 05/96; TECHEVAL 7/99; OPEVAL 10/99; MILESTONE III 05/00

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									\$0.0
<i>PROCUREMENT</i>																									\$0.0
INSTALLATION KITS																									\$0.0
INSTALLATION KITS NONRECURRING																									\$0.0
EQUIPMENT																							0		\$0.0
EQUIPMENT NONRECURRING																									\$0.0
ENGINEERING CHANGE ORDERS																									\$0.0
DATA																									\$0.0
TRAINING EQUIPMENT																									\$0.0
SUPPORT EQUIPMENT																									\$0.0
FIELD CHANGE KITS																									\$0.0
OTHER																									\$0.0
INTERIM CONTRACTOR SUPPORT																									\$0.0
ORDALT INSTALLATION				\$1.0		\$2.0				\$1.2															\$4.2
INSTALL COST																							0		\$0.0
TOTAL PROCUREMENT	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	0	\$0.0	\$0.0

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40										DATE: February 1999			
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: Ordnance Support Equipment Program Element for Code B Items:								P-1 ITEM NOMENCLATURE/LINE ITEM # <i>SUBMARINE ASW SUPPORT EQUIPMENT BLI: 543100 SBHD: 846A</i> OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005		To Complete	Total
QUANTITY													
EQUIPMENT COST (In Millions)			\$3.4	\$3.7	\$3.7	\$3.9	\$6.0	\$7.8	\$5.1	\$5.2			\$38.8
SPARES COST (In Millions)													
PROGRAM DESCRIPTION/JUSTIFICATION:													
This line item procures modifications and improvements to Attack and Ballistic Missile Submarine fire interface systems, torpedo tube system components and torpedo tube test equipment. These requirements arise as a result of the introduction of new or modified weapons and sensors and their subsequent evaluation test and operational use. Also procured are reliability, maintainability, functional and safety modifications and tactical improvements resulting from operational use experience.													
This line funds modifications and improvements in the following categories:													
6A002 - The Submarine Torpedo tube Support category funds in-service support and alteration procurements for all submarine torpedo tubes ejection pumps, handling systems, and countermeasure launchers. Recurring efforts are CASREP support to the fleet units, emergency ORDALTs, Bore Gage/Test Equipment Procurement, Engineering Change Proposal support and prototype ORDALTs. ORDALTs kits are procured to correct significant deficiencies in equipment affecting personnel safety, ship safety and system performance.													
6A5IN - Installing agents will be various Naval Shipyards and contractors. All installations will be on SSN 688 Class Submarines.													
The total objective for TEP Quieting ORDALTs is 37 units, total cost of \$38.0 million. Seventeen (17) units were procured with FY 96 and prior funds, and four (4) units with FY 97 funds, (2) units in FY 98, (2) units procured in Budget year, remaining 12 units to be procured in subsequent years.													

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE:					
P-5									February 1999					
APPROPRIATION/BUDGET ACTIVITY						ID Code			P-1 ITEM NOMENCLATURE/SUBHEAD					
Other Procurement, Navy									SUBMARINE ASW SUPPORT EQUIPMENT BLI: 543100 SBHD: 846A					
BA-4: ORDNANCE SUPPORT EQUIPMENT														
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>SUBMARINE (N87)</u>													
6A002	SUB TORPEDO TUBE SUPPORT	A			224			269			236			
	O/A PROTOTYPE/ECP MATERIAL				219			265			223			
	2J COG MATERIAL													
	TEST EQUIPMENT				177									
	BORGE GAGE				267			261			260			
	TEST FACILITY EQUIPMENT							323			358			
	MISC. TEST EQUIPMENT				273			295			285			
	TEP ORDALTS/TRIDS													
	O/A 16264 TEP QUIET 1			2	395.0	790	2	400.0	800	2	409.5	819		
	TPES FIRING VALVE													
	SSN 688 MINE CAPABILITY													
	FIRE CONTROL PANEL (PORTABLE)													
	<u>N87 SUBMARINE</u>													
6A5IN	INSTALLATION OF EQUIPMENT (FMP)				1,461			1,506			1,494			
	<u>TOTAL EQUIPMENT</u>				1,950			2,213			2,181			
	<u>TOTAL INSTALLATION</u>				1,461			1,511			1,519			
GRAND TOTAL								3,411			3,724			3,700

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE				
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SUBMARINE ASW SUPPORT EQUIPMENT BLI: 543100				SUBHEAD		
									February 1999		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
FY 98 6A002 SUB TORPEDO TUB	2	\$395.0	NAVSEA		WR	NUWC NEWPORT, RI	JAN 98	OCT 98	YES		
FY 99 SUB TORPEDO TUBE O/A 16264 TEP QUIET 1	2	\$400.0	NAVSEA		WR	NUWC NEWPORT, RI	JAN 99	OCT 99	YES		
FY 00 SUB TORPEDO TUBE O/A 16264 TEP QUIET 1	2	\$409.5	NAVSEA		WR	NUWC NEWPORT, RI	JAN 00	OCT 00	YES		
D. REMARKS											

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SUBMARINE ASW SUPPORT EQUIPMENT TYPE MODIFICATION: ORDALT MODIFICATION TITLE: SUB TORPEDO TUBE ORDALT 16264

DESCRIPTION/JUSTIFICATION:

PROJECT UNIT: ORDALT 16264 SUBMARINE TORPEDO EJECTION PUMP MK 5 MODS 15 THROUGH 20 UPGRADE REDUCES THE DETECTION AND CLASSIFICATION OF THE SSN 688 CLASS SUBMARINE WEAPON LAUNCH SIGNATURE.

IO= 37

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																									
<i>PROCUREMENT</i>																									
INSTALLATION KITS																									
INSTALLATION KITS NONRECURRING																									
EQUIPMENT	17	6.0	4	1.6	2	0.8	2	0.8	2	0.8														27	10.0
EQUIPMENT NONRECURRING																									
ENGINEERING CHANGE ORDERS																									
DATA																									
TRAINING EQUIPMENT																									
SUPPORT EQUIPMENT																									
OTHER																									
OTHER																									
OTHER																									
INTERIM CONTRACTOR SUPPORT																									
INSTALL COST	17	8.5	4	2.4	2	1.5	2	1.5	2	1.5															15.4
TOTAL PROCUREMENT		14.5		4.0		2.3		2.3		2.3		0.0		0.0		0.0		0.0		0.0				27	25.4

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4, ORDNANCE SUPPORT EQUIPMENT Program Element for Code B Items:								P-1 ITEM NOMENCLATURE/LINE ITEM # SURFACE ASW SUPPORT EQUIPMENT, (544900 & 544905) C46B OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)				\$5.8	\$4.9	\$6.1	\$6.4	\$6.1	\$6.4	\$4.9	\$5.0		\$45.7
SPARES COST (In Millions)													0
PROGRAM DESCRIPTION/JUSTIFICATION:													
This line item provides funding to procure Reliability, Maintainability and Availability (RM&A) and Safety modifications through the Ordnance Alteration (ORDALT) process to in-service ASW Fire Control, Surface Vessel Torpedo Tubes and related support and test equipment. These requirements arise as a result of evaluation, testing and Fleet use of existing, new or modified ASW weapons and/or related systems and subsystems. Included in this line item are all related procurements for training and simulation equipment required for the life cycle support efforts of this equipment. ORDALT quantities are highly variable. This budget reflects the transfer of design services into the appropriate equipment P-1 line item in accordance with full funding policies in FY99 and out.													
Cost Code 6B001 provides funding for Ordnance Alteration (ORDALT) kits for the ASW Underwater Fire Control System (UFCS) MK 116 MOD 4 and the Control Panel MK 309 Mods 0 and 2. Funding for FY 98 includes MK116 MOD 4A upgrade for CG 52 to 55, (ORDALT 30447) Interfaces with C&D 2.9 and provides VLA capability. RM&A and safety ORDALTs quantities are highly variable.													
(1) Installing Agent: All ORDALTs are installed via AIT. (2) Installations will be accomplished over the remaining fiscal years, during TYCOM scheduled pier side availabilities. (3) End items are variable, dependent on shipboard configuration and equipment affected. Shoresites include: NSWC Dahlgren, NUWC Keyport and Fleet ASW School.													
Cost Code 6B002 provides Material Support for the Underwater Fire Control System MK116 shore site laboratory at NSWC, Dahlgren and the Control Panel MK309 shore site laboratory at NUWC Keyport. Procurements will ensure laboratories are at Fleet baseline configurations.													
Cost Code 6B004 provides funding for Surface Vessel Torpedo Tubes (SVTT) MK32 and ancillary equipment. FY99-00 ORDALT procurements include: SVTT: 15713, 16412, 16493, 16564, 16594, 16678, 16627, 16628, 16717; Torpedo Loading Tray: 15714, 16413; Air Charging Panel (TBD); and Torpedo Test Shape (TTS) (TBD). ORDALT procurements are highly variable, dependant on shipboard configurations and equipment age. Installations are highly variable, via AIT, based on pier side availabilities and ship homeports													
(1) Installation agent: All ORDALTs are installed via AIT. (2) Installations will be accomplished over the remaining fiscal years, during TYCOM scheduled pier side availabilities. (3) End items are variable, dependant on shipboard configuration and equipment affected Shoresites include: NUWC Newport, UDLP, and Fleet/Service School Commands.													
Cost Code 6B007 provides funds for equipment upgrades ie. Torpedo Setting Panel as a result of Torpedo MK46 SLEP/MK 50 Bug 1/ MK54. FY 98 will include changes to the Torpedo Presetter Test Set MK 432 Mod 4, (MK423 MOD 6) and Torpedo Setting Panel MK331 Mod 4, for MK 46/MK 50, Bug1/MK54 interfacing/integration changes. Outyear Procurements will be required for MK50 Bug1 and MK54.													

P-1 SHOPPING LIST

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4, ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # SURFACE ASW SUPPORT EQUIPMENT, (544900 & 544905) C46B	
<p>Cost Code 6B011 is used to procure Surface Vessel Torpedo Tubes (SVTT) shore site laboratory equipment for Launcher System Facilities (LSF). LSF's are used to simulate Shipboard conditions for the over the side torpedo launchers in the trouble shooting of Fleet reported problems, as well as for the development of the required ORDALTS.</p> <p>Cost Code 6B830 provides the necessary engineering support funds to cover the associated ILS elements, ECP reviews, and engineering audits for SVTT ORDALT production.</p> <p>Cost Code 6B860 provides in-house navy acceptance test and evaluation funding required for the safety and quality assurance testing of all Fire Control ORDALTS.</p> <p>Cost Code 6B900 provides the necessary funding for NAVSEA Headquarters (HQ) consulting services required to ensure all production efforts use NDI and COTS in conjunction with operation and safety requirements to include all ORDALT production, test, and installation scheduling.</p> <p>Cost Code 6B5IN funding is for the Installation of all equipment (ORDALT and SHIPALTS) Under the Fleet Modernization Program (FMP). ORDALT AIT pierside installations are variable and contingent on TYCOM scheduling.</p>		

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE:					
P-5									February 1999					
APPROPRIATION/BUDGET ACTIVITY						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD							
Other Procurement, Navy							SURFACE ASW SUPPORT EQUIPMENT, (544900 & 544905) C46B							
BA-4, Ordnance Support Equipment														
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLAR:											
			FY 1998			FY 1999			FY 2000					
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
6B001	FIRE CONTROL ORDALTs				(779)			(713)			(854)			
	UFCS MK 116 ORDALTs				499			378			460			
	CP MK 309 ORDALTs				280			335			394			
6B002	WEAPON CONTROL SUPPORT EQUIPMENT				(280)			(420)			(184)			
	CP MK 309 MATERIAL SUPPORT				63			70			80			
	UFCS MK 116 MATERIAL SUPPORT				217			350			104			
6B004	TORPEDO TUBE ORDALTs				740			814			1,010			
6B007	TUBE/FC MK 50 INTEGRATION				270			429			448			
6B011	SVTT MK 32 LAB SUPPORT EQUIPMENT				112			142			95			
6B830	PRODUCTION ENGINEERING SUPPORT				196			81			540			
6B860	FCS ACCEPTANCE T&E				84			80			90			
6B900	CONSULTING SERVICES				250			247			469			
6B5IN	FMP INSTALLATION OF EQUIPMENT				(3,040)			(2,021)			(2,448)			
	FIRE CONTROL/SVTT				735			114			216			
	FUSS				2,305			1,907			2,232			
TOTAL								5,751			4,947			6,138

BUDGET ITEM JUSTIFICATION SHEET							DATE:					
P-40							February 1999					
APPROPRIATION/BUDGET ACTIVITY							P-1 ITEM NOMENCLATURE/LINE ITEM #					
Other Procurement, Navy							ASW Range Support Equipment BLI: 545500 PDLI: 846C					
BA 4 - ORDNANCE SUPPORT EQUIPMENT												
Program Element for Code B Items:							OTHER RELATED PROGRAM ELEMENTS					
							N/A					
	Prior Years	ID Code	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	To Complete	Total
QUANTITY											N/A	0
EQUIPMENT COST (In Millions)			\$3.4	\$4.5	\$6.4	\$6.8	\$6.0	\$7.6	\$7.8	\$8.0		\$50.5
SPARES COST (In Millions)												0
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p>Funding provides for the procurement of training range and shore support equipment, Test and Evaluation (T&E), and Acoustic Trial range equipment, weapon system and test support equipment and Unmanned Seaborne Targets (Starting in FY00 Unmanned Seaborne Targets will be funded in this line). Equipment procured includes instrumentation for Fleet Operational Readiness Accuracy Check Sites (FORACS) and Naval Undersea Warfare Center, Keyport (NUWC, KPT) T&E ranges, support equipment required to conduct Fleet exercises at Navy ASW Training ranges, Weapon System Accuracy Trials (WSAT) test, Surface Ship Radiated Noise Measurement (SSRNM), Sensor Accuracy Test (SAT), Ship ASW Readiness/Effectiveness Measuring (SHAREM) and Sonar Acoustic Target Source (SATS). Training and T&E ranges supported include Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), Atlantic Underwater Test and Evaluation Center (AUTEC), Atlantic Fleet Weapons Training Facility (AFWTF) (St. Croix), Nanoose, Quinault and Dabob Bay. FORACS ranges supported include Andros Island, Southern California, and Hawaii. The Unmanned Seaborne Targets Program provides surface seaborne targets and target electronic augmentation systems for weapons systems test and evaluation and Fleet surface to surface and air to surface training. Target requirements include the High Speed Mobile Sea Target (HSMST), an improved 40 Knot plus capable HSMST, the MK42 Mod 0 Floating At Sea Target (FAST) and the High Speed Anti-Radiation Missile/Infrared Missile (HARM/IR) Target, Towed Trimaran, William Sled, and Improved Surface Towed Target (ISTT). Inventory objective changes based on Fleet usage. Procurement of replacement targets for the QST-35 is planned to begin in FY05.</p> <p>6C001 - Weapon System and Test Support Equipment - Funding provides for the procurement of high power ESM targets, Universal Radar Moving Target Transponder, range communication systems, replacement of obsolete range computers, ship auto-tracking system, Surface Ship Acoustic Range Components, a missile defense radar target, Sensor Accuracy Test (SAT) equipment, Ship ASW Readiness/Effectiveness Measuring (SHAREM), upgraded ship position tracking system and upgrade hardware for Sonar Acoustic Target Source (SATS) as a test and calibration target for the SQQ-89I, SQS-53C, BQQ-5E and BSY-1 sonars.</p> <p>6C002 - Training/Test & Evaluation Range Equipment - Funding provides for the procurement of shipboard underwater tracking equipment for the existing ranges as well as the new Shallow Water Training Ranges at both coasts and Hawaii, shop special purpose pinger test equipment, and the associated cables/mounting hardware required to track ships and submarines conducting Fleet exercises at the Navy training ranges. NAVSEA provides all of the Navy Underwater Ranges with this tracking equipment support, because the equipment must be compatible with NAVSEA designed and built underwater vehicles (i.e. ships, submarines, torpedoes, mines and sonars). Funding provides for replacement and modernization of the following NUWC, KPT T&E range systems: Acoustic Noise Measuring Recording and Analysis System, Above Water Tracking System, RF and underwater communications equipment, and range data gathering equipment.</p> <p>VR001 - QST 35 Replacement.</p> <p>VR005 - The Fleet requires High Speed Maneuverable Seaborne Targets (HSMST) MK1.</p> <p>VR003, VR004 - The fleet also requires low cost expendable moving targets and stationary targets towed to the operating site for surface, aerial gunnery and missile shots. Trimarans, HARM/IR target, Williams Sleds, and ISTT with tow lines and retrieval systems meet these requirements. The FAST is a free floating radar reflective target developed as an open ocean training device for bombing and surface gunnery exercises. This program also procures seaborne target augmentation systems which include transponders (i.e. transmitters/receivers), radar reflectors, RF emitters and ground support equipment (GSE). Various electronic components provide the interface for the target control systems with the control stations/facilities for drone operations. RF emitters and radar reflectors enhance target threat replication and provide the required stimulus for anti-surface/radar weapons systems.</p> <p>Production support services will fund support efforts performed by a field activity or contractor during the production phase of these projects. Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts.</p>												

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System			DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA 4 - ORDNANCE SUPPORT EQUIPMENT					ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ASW Range Support Equipment BLI: 545500 PDLI: 846C								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	<u>N86</u>													
	EQUIPMENT													
6C001	Weapon System & Test Support Equip.				464			868			842			
6C002	Training/Test & Evaluation Range Equip.				184			139			259			
6C820	Consulting Services				41			67			78			
6C830	Production Engineering				91			72			86			
6C850	Product Improvement				49			54			65			
	SEABORNE TARGETS													
VR003	Towed Targets										295			
VR004	Instrumentation										483			
VR005	HSMST										564			
VR830	Production Engineering										188			
VR970	Integrated Logistics Support/Data										185			
VR900	Consulting Services										200			
	<u>N87</u>													
	EQUIPMENT													
6C001	Weapon System & Test Support Equip.				441			579			588			
6C002	Training/Test & Evaluation Range Equip.				1,585			2,220			2032			
6C820	Consulting Services				127			188			184			
6C830	Production Engineering				287			203			203			
6C850	Product Improvement				153			153			155			
TOTAL					3,422			4,543			6,407			

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT/BLI #5509					
Program Element for Code B Items: 0603654N								OTHER RELATED PROGRM ELEMENTS 0603645N					
	Prior Years	ID Code	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													0
EQUIPMENT COST (In Millions)	N/A	B	N/A	\$6.8	\$7.2	\$9.0	\$9.4	\$9.5	\$8.1	\$8.3	\$8.5	N/A	\$66.9
SPARES COST (In Millions)	N/A		N/A	N/A	\$3.6	\$3.2	\$3.9	\$3.3	\$3.4	\$3.4	\$3.4	N/A	\$24.2
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>The Navy is responsible for the management and execution of the Joint Service EOD unified procurement system as assigned by DOD Directive 5160.62. All procurement of EOD tools and equipment, both initial outfitting and replenishment, for all military services is made by the Navy. The Navy provides all procurement services. There is an annual average of 300 contracts for this material. Each military service funds it's own hardware.</p> <p>VN001-NEW RSP EQUIPMENT: Initial outfitting of tools/equipment for increased allowances incident to correction of initial outfitting deficiencies and as required by EOD render-safe procedures.</p> <p>VN005-MATERIAL FOR NAVAL SCHOOL EXPLOSIVE ORDNANCE DISPOSAL (NAVSCOLEOD): Provides ordnance material to NAVSCOLEOD for Joint Service training.</p> <p>VN034-INITIAL OUTFIT EOD NR: EOD Naval Reserve Mobile Units/Detachments require initial outfitting of equipment on the Allowance List as approved by CNO.</p> <p>VN057-MK 32/35 ACCESSORY SET: Hardware which allows for mine neutralization mission capabilities for MK 7 and MK 4 MMS.</p> <p>VN059-EOD MOBILE UNIT ALLOWANCE: Initial outfitting of tools/equipment for increased allowances on the CNO approved Allowance List.</p> <p>VN062-MMS SHIPBOARD: Initial outfitting of hardware and production of animal behaviors which allows the MK 4 and MK 7 MMS to operate on a shipboard platform from the sea.</p> <p>VN063-ADVANCED RADIOGRAPHIC SYSTEM (ARS): ARS will improve current EOD x-ray capabilities by providing a portable, enhanced real time image and reduce the EOD technicians vulnerability to unexploded ordnance (UXO) and Improvised Explosive Devices (IEDs).</p> <p>VN064-CLASSIFIED PROJECT I: Procurement of developed classified items.</p> <p>VN065-MMS VERY SHALLOW WATER MINE COUNTERMEASURES (VSWMCM): This funding supports initial outfitting of hardware and animal behaviors required for the subject systems to operate in a limited hostile environment and enhance system survivability.</p>													

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # <i>EOD EQUIPMENT/BLI #5509</i>	
<p>VN066-VSW ACCESSORY SET-Procurement of enhanced hardware design which allows for the neutralization of mines in the VSW region which are subject to tidal surge and elevated currents.</p> <p>VN067 REMOTE ORDNANCE NEUTRALIZATION SYSTEM (RONS), EX3 MOD 0: RONS will consist of a remote controlled vehicle and operator control station (OCS). RONS will complement/augment the EOD Technician when performing reconnaissance, access, render-safe, "pick up and carry away" (PUCA), and disposal during extremely hazardous EOD missions.</p> <p>VN069 MMS ALLOWANCE: Initial outfitting of tools/equipment for increased allowances of all Fleet MMS in accordance with CNO approved allowant list.</p> <p>VN830-PRODUCTION ENGINEERING: Review all technical data packages prior to procurement and provide procurement instruction to the procuring activity in support of the EOD unified procurement system. Provides production engineering support for all EOD and MMS production contracts.</p> <p>VN850-PRODUCT IMPROVEMENT: Engineering services to improve EOD/MMS Systems/Equipment in production to improve maintainability, utilize current technology and decrease cost.</p> <p>VN860-ACCEPTANCE, TEST & EVALUATION: Test, inspect, accept first articles and, on a 100% basis, the production quantity of EOD tools and equipment being procured. These tools are man-rated, and proper functioning of each item must be verified.</p> <p>VNTNG-INITIAL TRAINING: Provide training support packages which include curriculum material for Joint Service EOD and Marine Mammal systems equipment.</p> <p>Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts."</p>		

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CLASSIFICATION: UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS						Weapon System			DATE: February 1999					
P-5														
APPROPRIATION/BUDGET ACTIVITY						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD							
Other Procurement, Navy							EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT/74VN							
BA-4: ORDNANCE SUPPORT EQUIPMENT														
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000					
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
VN001	EQUIPMENT													
	NEW RSP EQUIPMENT	A			291			273						
VN005	MATERIAL FOR NAVSCOLEOD	A			140			140			150			
VN034	INITIAL OUTFIT NR	A			438			439			500			
VN057	MK 32/35 ACCESSORY SET	A	253	5.8	1,462	67	5.8	389	58	5.8	337			
VN059	EOD MU ALLOWANCE	A			1,550			1,622			2,233			
VN062	MMS SHIPBOARD	A			908			839						
VN063	ARS	A				111	13.3	1,476						
VN064	CLASSIFIED PROJECT	A			200									
VN065	MMS VSWMCM	A			550			555			1,706			
VN066	VSW ACCESSORY SET	A			305			410	157	3	551			
VN067	RONS	B							14	112	1,568			
VN069	MMS ALLOWANCE	A									200			
VN830	PRODUCTION ENGINEERING	A			0			65			605			
VN850	PRODUCT IMPROVEMENT	A			560			582			615			
VN860	ACCEPTANCE, TEST & EVALUATION	A			280			290			300			
VNTNG	INITIAL TRAINING	A			118			164			200			
TOTAL					6,802			7,244			8,965			

CLASSIFICATION: UNCLASSIFIED

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Other Procurement, Navy					EXPLOSIVE ORDNANCE DISPOSAL EQUIPMENT				74VN	
BA-4: ORDNANCE SUPPORT EQUIPMENT										
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR (98) VN057	253	5.78	NRaD, SAN DIEGO, CA		FFP	NRaD, SAN DIEGO, CA	2/98	2/99	YES	
FISCAL YEAR (99) VN057	67	5.79	NRaD, SAN DIEGO, CA		FFP	NRaD, SAN DIEGO, CA	2/99	2/00	YES	
VN063	111	13.3	NSWCIHD, IH, MD		FFP	NEODTD, INDIAN HEAD, MD	2/99	6/99	YES	
FISCAL YEAR (00) VN057	58	5.8	NRaD, SAN DIEGO, CA		FFP	NRaD, SAN DIEGO, CA	2/00	2/01	YES	
VN066	157	3.5			WR	NRaD, SAN DIEGO, CA	2/00	2/01	YES	
VN067	14	112	NSWCIHD, IH, MD		FFP	NEODTD, INDIAN HEAD, MD	2/00	7/00	YES	
D. REMARKS										

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA4: ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # UNMANNED SEABORNE TARGETS/24VR BLI: 5518					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY		A		6	6							Cont.	12
EQUIPMENT COST (In Millions)				\$2.2	\$1.9							Cont.	\$4.1
SPARES COST (In Millions)													\$0.0
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>The Unmanned Seaborne Targets Program provides surface seaborne targets and target electronic augmentation systems for weapons systems test and evaluation and Fleet surface to surface and air to surface training. Target requirements include the High Speed Mobile Sea Target (HSMST), an improved 40 Knot plus capable HSMST, the MK42 Mod 0 Floating At Sea Target (FAST) and the High Speed Anti-Radiation Missile/Infared Missile (HARM/IR) Target, Towed Trimaran, William Sled, and Improved Surface Towed Target (ISTT). Inventory objective changes based on Fleet usage. Procurement of replacement targets for the QST-35 is planned to begin on FY05.</p> <p>VR005 - The Fleet requires High Speed Maneuverable Seaborne Targets (HSMST) MK1.</p> <p>VR003, VR004 - The fleet also requires low cost expendable moving targets and stationary targets towed to the operating site for surface, aerial gunnery and missile shots. Trimarans, HARM/IR target, Williams Sleds, and ISTT with tow lines and retrieval systems meet these requirements. The FAST is a free floating radar reflective target developed as an open ocean training device for bombing and surface gunnery exercises. This program also procures seaborne target augmentation systems which include transponders (i.e. transmitters/receivers), radar reflectors, RF emitters and ground support equipment (GSE). Various electronic components provide the interface for the target control systems with the control stations/facilities for drone operations. RF emitters and radar reflectors enhance target threat replication and provide the required stimulus for anti-surface/radar weapons systems.</p> <p>Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts.</p> <p>P-1 CONSOLIDATE BLI 5455 FOR FY 2000-2005</p>													

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS			Weapon System						DATE:					
P-5									February 1999					
APPROPRIATION/BUDGET ACTIVITY			ID Code		P-1 ITEM NOMENCLATURE/SUBHEAD									
Other Procurement, Navy			A		UNMANNED SEABORNE TARGETS/24VR BLI: 5518									
BA4: ORDNANCE SUPPORT EQUIPMENT														
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
	OPNAV N864													
VR003	TOWED TARGETS	A			221			408						
VR004	INSTRUMENTATION	A			261			0						
VR005	HSMST	A	6	132	792	6	138	830						
VR830	PRODUCTION ENGINEERING	N/A			336			345						
VR970	INTEGRATED LOGISTCS SUPPORT/DATA	N/A			364			363						
VR900	CONSULTING SERVICES	N/A			244			0						
TOTAL			6		2,218	170		1,946	0		0	0		0

CLASSIFICATION: **UNCLASSIFIED**

B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				A. DATE	
Other Procurement, Navy					UNMANNED SEABORNE TARGETS				February 1999	
BA4: ORDANCE SUPPORT EQUIPMENT									SUBHEAD	
									24VR	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FY99 HSMST	6	138	NAVSEA	Dec 98	C/FP	TBD	Feb 99	Jun 99	YES	
D. REMARKS										

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET										DATE:			
P-40										FEBRUARY 1999			
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # ITEMS LESS THAN \$5M BLI 554300					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													
EQUIPMENT COST (In Millions)						\$4.4	\$4.9	\$5.1	\$4.4	\$4.6	\$4.8		\$28.2
SPARES COST (In Millions)													
PROGRAM DESCRIPTION/JUSTIFICATION:													
This line item was created as a result of Line Item Consolidation starting in FY 2000. Program Support Requirements for minor NAVSEA under \$5M is for Budget Activity 4 are as follows:													
<u>MK-92 Fire Control Equipment</u>													
Provides hardware, and related materials to modify Fire Control Systems Mk 92 Mod 2/6 and Guided Missile Launching System MK 13 installed in 23 FFG 7 Class Ships. Modifications correct safety, environmental, RMA, cost of ownership or obsolescence deficiencies to maintain the readiness of the AAW/ASUW Weapons System mission for self and area defense against hostile air and surface threats, including anti-ship missile threats. Hardware is procured as Ordnance Alterations (ORDALTs). Installation of Ordalts will be accomplished by either Alteration Installation Teams (AIT) or in conjunction with routine repair actions planned in the fiscal years following procurement.													
<u>Industrial Facilities (Calibration Equipment)</u>													
Provides funding for capital type rehabilitation projects at five (5) government-owned, contractor-operated (GOCO) plants to support production lines for weapon systems such as the MK 41 Vertical Launching System, MK 45 Gun Mounts, MK 13/26 Launching Systems, MK 13/26 Launching Systems, Sonar Bow Domes, and PHALANX. Funds are mandated per Federal Acquisition Regulation Part 52.245-7 which specifies facilities use contracts and requires government funding of capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 50 years and lack of proper capital maintenance will severely limit capabilities to maintain scheduled production rates and overall productivity. The following budget estimates support deficiencies in environmental, safety, energy conservation, and major repair at the (5) GOCO facilities.													
<u>Stock Surveillance Equipment</u>													
These funds are to procure test systems and equipment in support of the Navy weapons systems and ordnance Quality Evaluation (QE) Program to provide safe, quality, and reliable Navy and Marine Corps weapons systems and ordnance to the Fleet. The results of the QE stock surveillance, facilitate the increases in the safety, quality, reliability, and performance (including readiness and service/shelf life) of the weapons systems and ordnance throughout their life cycle. This generic (non-weapons systems specific) test equipment is for evaluation of Navy weapons systems and ordnance such as mines, gun ammunition, missiles, pyrotechnics, demolition systems/devices, bombs, and torpedoes. The test equipment is required to modernize obsolete or economically non-repairable equipment, or to acquire new or expanded test capabilities when needed.													
<u>Fleet Mine Support Equipment</u>													
The Fleet Mine Support program provides for procurement of material and production support for readiness of all mines in stockpile. This includes both the service mine program and the Mine Exercise and Training (MET) Program in accordance with OPNAVNOTE C8550. Funds will provide the following: (A) Production engineering support for mine assembly and loading, proof and test of mine components delivered from procurement. Certification of specialization/documentation relating to mine material to be procured, engineering and quality assurance services in support of mine material procurements and publications in support of component assembly and test for service and MET program. (B) Procurement of mine materials to replace expended components used during the MET program for delivery proficiency. (C) Procurement of mine materials to replace expended components used during the MET program for Mine Countermeasures (MCM) proficiency. procurement of components to improve mine operational characteristics and capabilities, such as upgraded processors for compatibility with current and projected technology.													

CLASSIFICATION:

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System						DATE: FEBRUARY 1999			
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4 - ORDNANCE SUPPORT EQUIPMENT						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD ITEMS LESS THAN \$5M BLI 554300								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1998			FY 1999			FY 2000			FY 2001		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
RA001	5208 - MK-92 Fire Control System					556			846			900			
RA5IN	Mk-92 Installation of Equipment FMP				111			115			114				
RA002	5542 - Industrial Facilities (Calibration Equip				1,340			1,034			983				
RA003	5545 - Stock Surveillance Equipment				1,262			1,421			1,452				
RA004	5635 - Fleet Mine Support Equipment				3,895			11			913				
RA005	Mine System/VEMS Support Equipment Production Engineering										(600)			(303)	
*FY 1998 and FY 1999 data shown is for presentation purposes only. Funding is being executed in the bolded line items as appropriated. Starting in FY 2000, these line items were consolidated into this line item title "Items less than \$5 M".															
			0			7,164			3,427			4,362			0

CLASSIFICATION: **UNCLASSIFIED**

B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY / BA-4: ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE FLEET MINE SUPPORT			A. DATE February 1999 SUBHEAD		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u>FISCAL YEAR 1998</u> DA004 - VEMS	3	108.0	NAVSEA	N/A	SS/FFP/OPTION	BAeSEMA United Kingdom	3/98	1/99	YES	
DA004 - VEMS SPT EQUI	VAR	VAR	NAVSEA	N/A	SS/FFP/OPTION	BAeSEMA United Kingdom	3/98	1/99	YES	
<u>FISCAL YEAR 1999 - N/A</u> <u>FISCAL YEAR 2000</u> DA004 - VEMS SPT EQUI	VAR	VAR	NAVSEA	N/A	SS/FFP	BAeSEMA United Kingdom	12/99	12/00	YES	
D. REMARKS DA004 - SUPPORT EQUIPMENT INCLUDES: PRODUCT IMPROVEMENTS (ANECHOIC JACKETS, UPGRADED MICRO PROCESSORS, RADIO LINK CAPABILITY, ETC), ECPs SEVERAL ANCILLARY ITEMS, AND CONTRACTOR ENGINEERING SUPPORT REQUIRED IN ADDITION TO VEM UNIT										

CLASSIFICATION: **UNCLASSIFIED**

B. APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE MK 92 FIRE CONTROL SYSTEM			A. DATE Feb-99		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<u>FY 1998</u>										
MOD 6 BLK 7	12	46.3	NSWC,PHD	10/97	SS/FFP	LOCKHEED/NJ	07/98	01/99	YES	
<u>FY 1999</u>										
MOD 6 BLK 8	12	70.5	NSWC,PHD	10/98	SS/FFP	LOCKHEED/NJ	03/99	09/99	NO	10/98
<u>FY 2000</u>										
MOD 6 BLK 8	12	76.3	NSWC,PHD	10/99	SS/FFP	LOCKHEED/NJ	3/00	9/00	NO	10/99
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: Fire Control System Mk 92 Mod 6 TYPE MODIFICATION: _____ MODIFICATION TITLE: JU001 FLEET SUPPORT ORDALTS:

DESCRIPTION/JUSTIFICATION:

Correct safety, environmental or obsolescence deficiencies to maintain combat readiness. FY 96 and prior procurements were RMA/safety ORDALTs for AAW weapon system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: **ORDALT DEFICIENCY CORRECTION PROGRAM**

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC	TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E		16.8		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0	16.8	
PROCUREMENT																								
INSTALLATION KITS		0.0	12	1.8	12	0.6	12	0.8	12	0.9	12	1.0	12	1.0	12	1.1	12	1.1	12	1.1	0	0.0	108	9.4
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
PROCUREMENT COST					12	0.6	12	0.8	12	0.9	12	1.0	12	1.0	12	1.1	12	1.1	12	1.1	0	0.0	108	7.6
INSTALL COST						0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.1		0.0		0.9
TOTAL PROGRAM COST					12	0.7	12	1.0	12	1.0	12	1.1	12	1.1	12	1.2	12	1.2	12	1.2	0	0.0	108	8.5

P-1 SHOPPING LIST

CLASSIFICATION:

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CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: FIRE CONTROL SYSTEM MK92 MOD 6 MODIFICATION TITLE: FLEET SUPPORT ORDALTS: MK 92 FCS

INSTALLATION INFORMATION: 12 CORT FFGs

METHOD OF IMPLEMENTATION: AIT

ADMINISTRATIVE LEADTIME: 1-12 MONTHS

PRODUCTION LEADTIME: 6-18 Months

CONTRACT DATES: FY 1998 7 98 FY 1999 3 99 FY 2000 3 00

DELIVERY DATE: FY 1998 1 99 FY 1999 9 99 FY 2000 9 00

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total								
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$							
PRIOR YEARS																															
FY 1997 EQUIPMENT					12	0.1																		12	0.1						
FY 1998 EQUIPMENT							12	0.1																	12	0.1					
FY 1999 EQUIPMENT									12	0.1																12	0.1				
FY 2000 EQUIPMENT											12	0.1															12	0.1			
FY 2001 EQUIPMENT													12	0.1														12	0.1		
FY 2002 EQUIPMENT															12	0.1													12	0.1	
FY 2003 EQUIPMENT																	12	0.1											12	0.1	
FY 2004 EQUIPMENT																				12	0.1									12	0.1
TO COMPLETE																						0	0.0						0	0.0	

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1998	FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL				
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			1	2	3	4
In	12	12	0	0	0	12	0	0	0	12	0	0	0	12	0	0	0	12	0	0	0	12	0	0	0	12	0	0	0	12	0	0	0	0	96
Out	12	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	4	4	4	0	96

P-3A

CLASSIFICATION:

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1999				
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT							P-1 ITEM NOMENCLATURE/LINE ITEM # FLEET MINE SUPPORT EQUIPMENT (5635)					
Program Element for Code B Items: 0204304N							OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
EQUIPMENT COST (In Millions)			\$4.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4.6
SPARES COST (In Millions)												
PROGRAM DESCRIPTION/JUSTIFICATION:												
Starting with the FY 2000 budget, this program was consolidated into the Items less than \$5 million line - 554300.												

BUDGET ITEM JUSTIFICATION SHEET								DATE: February-99					
P-40													
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA-4: ORDNANCE SUPPORT EQUIPMENT								P-1 ITEM NOMENCLATURE/LINE ITEM # SURFACE TRAINING DEVICE MODIFICATION BLI: 566000 SBHD: 84TS					
Program Element for Code B Items:								OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code		FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY													
EQUIPMENT COST													
(In Millions)													
	N/A			\$8.6	\$6.9	\$10.7	\$8.1	\$7.5	\$6.9	\$7.0	\$6.6	N/A	\$62.3
SPARES COST													
(In Millions)													
PROGRAM DESCRIPTION/JUSTIFICATION:													
<p>(566000) This line provides funds to modify/upgrade training devices to maintain systems at Fleet configuration and to enhance training capability.</p> <p>(TS004) SURFACE TRAINING DEVICE MODS Provides funding for minor modifications with a unit cost of less than \$1.0M per device. These modifications are improvements/upgrades to in-service surface training systems identified by the program offices and training activities, and are approved by the Resource Sponsor. Modifications are required to meet safety standards, keep training systems compatible with equivalent changes made to fleet operational equipment, and to enhance training capabilities.</p> <ul style="list-style-type: none"> o Funding is provided annually, starting in FY97 for modifications to the Device S14A13 Tactical Advanced Simulated Warfare Integrated Trainer (TASWIT). o Funding is provided from FY98 through FY00 for upgrade of the Mobile Combat Systems Trainer (MCST) Device 20B5 for applications to the MK 92 Mod 6 Fire Control System (FCS). o Funding was provided in FY98 for modification of TASWIT/TACDEW software into the Multi Mission Team Trainer (MMTT) and will be provided in FY00 and out for procurement/installation/upgrade of the Navy's standardized shore based team tactics trainer. o Funding will be provided in FY00 for modification of AN/USQ-T46 BFTT Systems to incorporate DoD mandated High Level Architecture (HLA) standards/functionality. <p>(TS001) CARRY-ON COMBAT SYSTEM TRAINER (COCST) FY 98 funding included Congressionally mandated funding for the Carry-On Combat Systems Trainers (COCST). COCST effort will provide a portable Battle Force Tactical Training (BFTT)/Generic Navy Stimulator/Simulator (GNSS) training capability for those ships not programmed to receive the BFTT/GNSS capability.</p> <p>Funding to complete COCST procurement is provided in FY 99 and FY 00. These systems will provide a portable BFTT/GNSS training capability for those ships not programmed to receive the BFTT/GNSS capability.</p> <p>(TS00X) BATTLE FORCE TACTICAL TRAINING ELECTRONIC WARFARE TRAINER (BEWT) FY 99 Congressionally mandated funding is provided for the production and installation of the BEWT. BEWT provides and Electronic Warfare (EW) system operator and team training capability.</p>													

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WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System			DATE: February-99					
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: ORDNANCE SUPPORT EQUIPMENT						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD SURFACE TRAINING DEVICE MODIFICATION BLI: 566000 SBHD: 84TS							
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
TS001	SURFACE MODS (N85/N86) CARRY-ON COMBAT SYSTEMS TRAINER (COCST) Carry-On Combat Systems Trainer(N86)		2	1,898	3,796	2	1,250	2,500	2	1,000	2,000			
TS00X	BATTLE FORCE TACTICAL TRAINING ELECTRONIC WARFARE TRAINER (BEWT) (N86)					10	100	1,000						
TS004	SURFACE TRAINING DEVICE MODS Surface Minor Mods (N85) Surface Minor Mods (N86)				4,828			3,362			932 7,769			
	SUBTOTAL (N85)										932			
	SUBTOTAL (N86)				8,624			6,862			9,769			
TOTAL					8,624			6,862			10,701			0

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P-1 SHOPPING LIST

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BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE February-99			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA-4: ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SURFACE TRAINING DEVICE MODIFICATION BLI:566000				SUBHEAD 84TS	
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
TS001 FISCAL YEAR (98) COCST	2	1,898	DCMC Towson, MD	N/A	BOA	AAI Corporation Hunt Valley, MD	4/98	7/99	YES	N/A
TS001 FISCAL YEAR (99) COCST	2	1,250	DCMC Towson, MD	N/A	BOA	AAI Corporation Hunt Valley, MD	12/98	11/99	YES	N/A
TS001 FISCAL YEAR (00) COCST	2	1,000	DCMC Towson, MD	N/A	BOA	AAI Corporation Hunt Valley, MD	12/99	10/00	YES	N/A
TS00X FISCAL YEAR (99) BEWT	10	100	NAVSEA Arlington, VA	N/A	SBIR Phase III CPFF	EWA, INC. Fairmont, WV	04/99	07/99	YES	N/A
D. REMARKS										

SIMULATOR AND TRAINING DEVICE JUSTIFICATION (\$000)						Date February-99			
Appropriation P-1 Line Item		Weapon System (if applicable)		Equipment Nomenclature		PE			
566000				Surface Training Device Modifications		0804731N			
Fin Plan	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	TOTAL
Quantity		VAR	VAR	VAR	VAR	VAR	VAR	VAR	VAR
Proc		\$8,624	\$6,862	\$10,701	\$8,070	\$7,515	\$6,864	\$6,951	\$55,587
RDT&E									
O&S									

(L/I 566000)

This line provides funds to modify/upgrade training devices to maintain systems at Fleet configuration and to enhance training capability.

(TS004) SURFACE TRAINING DEVICE MODS

Provides funds for minor modifications with a unit cost of less than \$1.0M per device. These modifications are improvements/upgrades to in-service surface training systems identified by the program offices and training activities, and are approved by the Resource Sponsor. Modifications are required to meet safety standards, keep training systems compatible with equivalent changes made to fleet operational equipment, and to enhance training capabilities.

(TS001) CARRY-ON COMBAT SYSTEMS TRAINER (COCST)

FY 98 funding included Congressionally mandated funding for the Carry-On Combat Systems Trainer (COCST). COCST effort will provide a portable Battle Force Tactical Training (BFTT)/Generic Navy Stimulator/Simulator (GNSS) training capability for those ships not programmed to receive the BFTT/GNSS capability.

Funding to complete COCST procurement has been allocated in FY 99 and FY 00. These systems will provide a portable BFTT/GNSS training capability for those ships not programmed to receive the BFTT/GNSS capability.

(TS00X) BATTLE FORCE TACTICAL TRAINING ELECTRONIC WARFARE TRAINER (BEWT)

FY 99 Congressionally mandated funding is provided for the production and installation of the BEWT. BEWT provides and Electronic Warfare (EW) system operator and team training capability.

CLASSIFICATION:

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BUDGET ITEM JUSTIFICATION SHEET P-40							DATE: February 1999					
APPROPRIATION/BUDGET ACTIVIT' OTHER PROCUREMENT, NAVY BA-4 ORDNANCE SUPPORT EQUIPMENT							P-1 ITEM NOMENCLATURE/LINE ITEM # <i>SUBMARINE TRAINING DEVICE MODS BLI: 566100 SBHD: 84TD</i>					
Program Element for Code B Items:							OTHER RELATED PROGRAM ELEMENTS					
	Prior Years	ID Code	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	To Complete	Total
QUANTITY												
EQUIPMENT COST (In Millions)			\$22.2	\$23.7	\$27.6	\$29.8	\$18.1	\$17.7	\$18.0	\$18.3		\$175.4
SPARES COST (In Millions)												
PROGRAM DESCRIPTION/JUSTIFICATION:												
<p><u>(L/I 5661)</u> This line provides funds to modify/upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment and to enhance trainer systems capabilities.</p> <p><u>(TD002) SUBMARINE TRAINING DEVICE MODS</u> Provides funding for minor modifications which are improvements/upgrades to in-service submarine training systems which are centrally managed systems. These improvements/upgrades are required to keep training systems compatible with equivalent changes made to fleet operational equipment and to change trainer capabilities to meet emergent training requirements</p> <p><u>(TD003) SUBMARINE COMBAT SYSTEM TEAM TRAINER (SCSTT)</u> To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shorebased training facilities capable of training submarine combat system team personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment.</p> <p>The Combat Control System (CCS) MK 1 and CCS MK 2 are installed, or being installed, on SSN and SSBN (TRIDENT) Class submarines. CCS MK 1 submarines will receive Basic kits (initial update of CCS MK1 to CCS MK 2) and CCS MK 2 Block changes.</p> <p>CCS MK 2 DO Block 1 Program and includes Tomahawk Block III, Harpoon Block 1C, ADCAP (Advanced Capability torpedo) mods, NTCSA (Navy Tactical Command System Afloat, and ATWCS (Advanced Tomahawk Weapon Control System).</p>												

P-1 SHOPPING LIST

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # SUBMARINE TRAINING DEVICE MODS BLI 566100	
<p><u>(TD003) SUBMARINE COMBAT SYSTEM TEAM TRAINER (SCSTT)</u> (Continued)</p> <p>The CCS MK2 tactical program is to be upgraded to include CCS MK 2 Block 1 C. This includes Combat Display Console (CDC) color/landscape, CPU parallel processor removal, AN/UYK-44 removal, Mk 23 Graphic Plotter OER, additional ADCAP upgrades, and FTAG (Fleet Tactical Advisory Group) improvements. CCS MK 2 Block 1 also introduces the Advanced Tomahawk Weapon Control System (ATWCS), NTCS-A and Tomahawk Block Improvement Program (TBIP) which consists of Tomahawk Weapon improvements.</p> <p>The Submarine Multi Mission Team Trainer (SMMTT) Phases 1, 2, 3 program replaces the proprietary mainframe computer system by re-hosting functions on industry standard Local Area Network (LAN) workstations. The mainframes can no longer be upgraded due to service life. The SMMTT modification applies to both the CCS trainers and the acoustic trainers and will occur in three distinct phases. SMMTT Phase 1 provides partial offload of the trainer-unique-equipment (TUE) software and provides additional processing power through the use of independent workstations. SMMTT Phase 2 completes the trainer-unique software offload and enables further enhancements. SMMTT Phase 3 will replace all MIL Standard hardware with commercial emulation hardware, enabling platform independence and wide area network capability. The use of open architecture trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine CCS. Plans are established to likewise upgrade submarine tactical systems to an open architecture, and the trainers will be compatible with the tactical interfaces.</p> <p>FY98 Procured the trainer unique hardware to upgrade the CC Engineering Production Model (EPM) at NUWC, Newport to provide SMMTT Phase 2 functions to support the Trainer EPM with the CCS Mk2 Block 1C upgrade. Procures one SMMTT Phase 1 Trainer upgrade kit to support CCS Mk2 D0 in the SCSTT. Offloads selected weapons functions from CCS Mk1 Generalized Simulation Stimulation (GSS) software to SMMTT Phase 2 architecture for the CC EPM.</p> <p>FY99 Offloads non-weapon functions of CCS Mk1 GSS software to SMMTT Phase 2 architecture.</p> <p>FY00 Procures TUE hardware for CC EPM and modifies software for SMMTT3 functions. Modifies CC EPM software to support MK118 trainer functionality to emulate CCS MK2 D0 Block 1C. Procures one SMMTT MK2 D0 Block 1C kit. Modifies functionality of the Submarine Tactical Visual Training System (STVTS) to provide common imaging training for CCS trainers.</p>		

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT		P-1 ITEM NOMENCLATURE/LINE ITEM # SUBMARINE TRAINING DEVICE MODS BLI: 566100
<p><u>(TD005) SUBMARINE ACOUSTIC TEAM TRAINER</u> The AN/BQQ-5 and AN/BQQ-6 Series Sonar Systems are installed aboard SSN and SSBN Class submarines. The Submarine Acoustic Trainers, simulate the digital data processing and graphic displays of the associated tactical system. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) Phased upgrades impact the AN/BQQ5E(V) and AN/BQQ-6 systems. The SMMTT upgrades will be applied to selected SSN and SSBN acoustic trainers.</p> <p>The SMMTT acoustic modifications support training for enlisted and officer pipelines. The SMMTT provides individual operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency in stand alone or in combined team mode when tied to Combat System Team Trainers.</p> <p>FY98 Procured modifications to offload the remainder of 21B64E(V) ARCI Phase I SIM/STIM software into the SMMTT Ph 2 architecture for the acoustic trainer EPM.</p> <p>FY99 Procures modifications to the Acoustic Trainer EPM for the SMMTT Ph2 operating system software with selected upgrades to support the ARCI Phase II functionality. Procures modifications to the SMMTT Phase 2 software to support Medium Frequency Active Improvements (MFAI) for the Acoustic Trainer EPM.</p> <p>FY00 Procures modifications to SMMTT Phase 2 EPM software to support AN/BQQ-6 ARCI enhancements. Procures SMMTT kits to upgrade two trainers, one to ARCI-II and one to ARCI-III. It also provides for Acoustic EPM modifications to support spectral analysis integration with SMMTT. Procures TUE hardware for the Acoustic EPM and modifies software for SMMTT Ph3 functions.</p> <p><u>(TD006) SUBMARINE COMBAT CONTROL OPERATOR TRAINER / COMMON BASIC OPERATOR TRAINER (CBOT)</u> The purpose of these devices is to provide pipeline training to submarine force personnel who require basic and advanced operator training to establish their required level of operator competence. These devices train individual operators on the CCS MK 1/ MK 2, and AN/BSY-1 by supplementing classroom instructions with dynamic training exercises. Through the use of these training devices, the student obtains direct, interactive experience in Command, Weapon, Target Motion Analysis (TMA), and Over-The-Horizon (OTH) operations in order to develop the skills required for effective command and control operations. These devices provide an environment substantially equivalent to that found onboard ship, thus enabling students to develop and maintain the combat control expertise necessary to support Fleet operations. FY-90 established the requirement to provide advanced operator training for CCS MK 2 to support SSN 688, SSN 751 (AN/BSY-1), and TRIDENT SSBN (OHIO) Class submarines. The Fire Control Submarine and IUSS Training Requirements Review (SITTR) of 6/92 established the requirements for Common Basic Operator Trainers (CBOT) to support revised A-School training pipelines.</p>		

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BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT	P-1 ITEM NOMENCLATURE/LINE ITEM # SUBMARINE TRAINING DEVICE MODS BLI: 566100	
<p><u>(TD006) SUBMARINE COMBAT CONTROL OPERATOR TRAINER / COMMON BASIC OPERATOR TRAINER (CBOT)</u>Continued</p> <p>FY98 Procured trainer unique software modifications to upgrade the CBOT EPM and the training site CBOTs with the CBOT Mk2 D0 Block 1C configuration.</p> <p>FY99 Procures trainer unique software modifications to upgrade the CBOT EPM and the training site CBOTs with the CCS Mk2 D0 Block 1C link 16 functions configuration, and with Launch System training enhancements.</p> <p>FY00 Procures modifications for the CBOT EPM and the training site CBOTs with the CCS MK2 D0 Block 1C weapons enhancements.</p> <p><u>(TD011) AN/BSY-1 TRAINER IMPROVEMENTS</u></p> <p>AN/BSY-1 trainers support shorebased training for crews of SSN 751 Class submarines fitted with the AN/BSY-1 integrated Combat Control/Acoustic (CC/A). CC/A Team Trainers support subteam training in combat control and acoustics as well as full combat system team training. The SMMTT program will occur in two phases for the AN/BSY-1 Team Trainer: Phase 1 will provide BSY-1 trainers with acoustic and combat control SMMTT functionality, and Phase 2 will replace the obsolete mainframe with a distributive network system.</p> <p>FY98 Procured modifications to develop AN/BSY-1 SMMTT Phase 1 with ARCI Phase II functionality.</p> <p>FY99 Procures modifications to SMMTT Phase 2 with AN/BSY 1 ARCI Phase II functionality. Procures two trainer upgrade kit for SMMTT Phase 1 with AN/BSY-1CC/A at ARCI Phase II and CCS Mk2 Block 1C functionality.</p> <p>FY00 Modifies the SMMTT EPM to match the AN/BSY-1 ARCI functions and procures one upgrade kit.</p>		

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40 CONTINUATION		DATE: February 1999
APPROPRIATION/BUDGET ACTIVITY OTHER PROCUREMENT, NAVY BA 4: ORDNANCE SUPPORT EQUIPMENT		P-1 ITEM NOMENCLATURE/LINE ITEM # SUBMARINE TRAINING DEVICE MODS BLI: 566100
<p><u>(TD012) SUBMARINE BATTLE FORCE TACTICAL TRAINING (BFTT) DEVICE MODS</u> The requirement for the Submarine BFTT was established by the BFTT Operational Requirement Document (ORD) No. 2U648877 of 13 Mar 1992. The Submarine BFTT device consists of a carry-on unit that will provide the CO/OOD with a display depicting the position and modes of each participant and target in the BFTT scenario. This device will interface with and interpret the BFTT scenario and make use of the Tactical Advanced Simulated Warfare Integrated Trainer (TASWIT). The Submarine BFTT program will modify TASWIT software to reflect submarine combat systems displays and the interface with BFTT. It will consist of a computer and interface equipment with software designed to interface with and interpret the BFTT system, and to receive and transmit tactical data using own ship's communications equipment. This device is intended to exercise the communications team and the CO/OOD, but not to provide training for the remaining submarine sensor operators and Combat System Team.</p> <p>FY98 The FY98 buy consisted of 12 units and accompanying software.</p> <p>FY99 The FY99 buys consist of one unit.</p> <p>FY00 Procures one unit.</p> <p><u>(TD6IN) INSTALLATION OF EQUIPMENT</u> Funding is for the installation of trainers, installation support for trainers, and installations in other shore facilities.</p> <p>Estimates include competitive sourcing savings associated with consolidation of production support contracting efforts.</p>		

UNCLASSIFIED

CLASSIFICATION:

UNCLASSIFIED

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System			DATE: February 1999					
APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA 4: ORDNANCE SUPPORT EQUIPMENT					ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD SUBMARINE TRAINING DEVICE MODIFICATIONS BLI: 566100 SBHD: 84TD								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS											
			FY 1998			FY 1999			FY 2000			FY 2001		
			QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
TD002	<u>SUBMARINE WARFARE (N87)</u> SUBMARINE TRAINING DEVICE MODE Minor Mods				751 (751)			983 (983)			2,081 (2,081)			
TD003	SUB COMB SYS TEAM TRAINER Modifications Modifications Modifications Modifications Modifications Tech Support	A	1 1 1 1 1	(617) (3,392) (780)	(617) (3,392) (780)	1	(4,521)	(4,521)	1 1 1 1	(501) (350) (3,222) (2,020) (1,915)	(501) (350) (3,222) (2,020) (1,915)			
					(1,813)			(1,660)			(1,557)			
TD005	SUBMARINE ACOUSTIC TEAM TRAINER Modifications Modifications Modifications Modifications Modifications Specialized Skills Trng Tech Support	A	1	(5,076)	(5,076)	1 1 1	(4,405) (1,304) (200)	(4,405) (1,304) (200)	1 1 1 1 1	(1,907) (652) (507) (1,158) (773) (1,462)	(1,907) (652) (507) (1,158) (773) (1,462)	(50)		(1,597)
					(1,03) (1,728)			(44) (1,918)			(50) (1,597)			
TD006	SUB COMB CONT OPER TRAINER Modifications Modifications	A	4	(288)	1,153 (1,153)	4 1	(142) (950)	1,518 (568) (950)	4	(162)	648 (648)			
TD011	DEVICE AN/BSY-1 TRAINER Modifications Modifications Modifications Tech Support	A	1	(4,213)	(4,213)	2 1	(801) (4,470)	(1,602) (4,470)	1 1	(5,431) (400)	(5,431) (400)			(158)
					(134)			(187)			(158)			
TD012	SUBMARINE BAT FORCE TACT TRNG Carry-On CO/OOD Displays		12	(153)	1,836 (1,836)	1	(104)	104 (104)	1	(106)	106 (106)			
					21,596			22,916			26,495			
TD6IN	INSTALLATION (Non-FMP)				613			787			1,084			
TOTAL					22,209			23,703			27,579			0

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA 4: ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SUBMARINE TRAINING DEVICE MODIFICATIONS				February 1999	
									SUBHEAD	
					84TD					
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FISCAL YEAR (98)										
TD003										
SCSTT SMMTT 1 Mk 2 D0	1	617	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	01/98	05/98	YES	
CCS SMMTT 2 Mk2B1C	1	3,392	NAVSEA	NA/	WX	NUWCDIV NEWPORT, RI	01/98	02/00	YES	
CCS SMMTT 2 GSS Weps	1	780	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	01/98	02/00	YES	
TD005										
A SMMTT 2 ARCI - I	1	5,076	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/98	04/00	YES	
TD006										
CBOT Mk2B1C	4	288	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	01/98	03/99	YES	
TD011										
BSY1/A SMMTT ARCI-II	1	4,213	NAVSEA	TBD	SS/FF Opt	LMFS MANASSAS, VA	02/98	04/00	YES	
TD012										
BFTT MODS	12	152	NAWC TSD	N/A	WR	NAWCTSD ORLANDO, FI	02/98	02/99	YES	
FISCAL YEAR (99)										
TD003										
CCS SMMTT 2 Non-Weps	1	4,521	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	03/99	01/00	YES	
TD005										
A SMMTT 2 ARCI - II	1	4,405	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/99	07/00	YES	
A SMMTT 2 MFAI	1	1,304	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/99	07/00	YES	
ARCI-II KIT	1	200	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/99	10/01	YES	
TD006										
CBOT Mk2 Link 16	4	142	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	03/99	10/00	YES	
CBOT LS	1	950	NAVSEA	N/A	WX	TBD	03/99	12/00	YES	
TD011										
BSY1 ARCI - II Kit	2	801	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/99	09/00	YES	
BSY1 SMMTT 2 ARCI - II	1	4,470	NAVSEA	10/96	SS/FF Opt	LMFS MANASSAS, VA	02/99	09/00	YES	
TD012										
BFTT MODS	1	104	NAWC TSD	N/A	WR	NAWCTSD ORLANDO, FI	02/99	02/00	YES	
D. REMARKS										

CLASSIFICATION: **UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System			A. DATE			
B. APPROPRIATION/BUDGET ACTIVITY Other Procurement, Navy BA 4: ORDNANCE SUPPORT EQUIPMENT					C. P-1 ITEM NOMENCLATURE SUBMARINE TRAINING DEVICE MODIFICATIONS				February 1999		
									SUBHEAD 84TD		
Cost Element/ FISCAL YEAR	QTY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE	
FISCAL YEAR (00)											
TD003											
CCS MK2B1C CCTT	1	501	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	02/00	09/02	YES		
SMMTT H/W EPM	1	350	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	02/00	10/00	YES		
SMMTT S/W EPM	1	3,222	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	02/00	08/02	YES		
CCS MK118 SMMTT EPM	1	2,020	NAVSEA	N/A	WX	NUWCDIV NEWPORT, RI	02/00	01/02	YES		
CCS STVTS EPM	1	1,915	NAVSEA	TBD	TBD	TBD	02/00	09/03	YES		
TD005											
SMMTT 2 ARCI II (Q6)	1	1,907	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	01/02	YES		
SMMTT 2 KIT (Q6)	1	652	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	09/02	YES		
SMMTT 2 ARCI-III KIT	1	507	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	09/02	YES		
SMMTT 3 PROTO	1	1,158	NAVSEA	07/99	TBD	TBD	02/00	08/02	YES		
SMMTT 3 EPM H/W	1	773	NAVSEA	07/99	TBD	TBD	02/00	08/02	YES		
SMMTT SPECTRAL	1	1,462	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	09/02	YES		
TD006											
CBOT MK2 DO BIC WEPS	4	162	NAVSEA	N/A	WX	NUWC NPT	02/00	04/02	YES		
TD011											
SMMTT 2 ARCI-III+	1	5,431	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	01/02	YES		
SMMTT 2 ARCI-III+ KIT	1	400	NAVSEA	07/99	SS/FF	LMFS MANASSAS, VA	02/00	03/02	YES		
TD012											
BFTT KIT	1	106	NAWC TSD	N/A	WR	NAWCTSD ORLANDO, FI	02/00	11/00	YES		
D. REMARKS											

P3A **INDIVIDUAL MODIFICATION**

MODELS OF SYSTEM AFFECTED: SCSTT TYPE MODIFICATION: UPGRADES MODIFICATION TITLE: TD003 Combat System Team Trainer

DESCRIPTION/JUSTIFICATION:

Modifications include the procurement of modifications to support tactical improvements to Submarine Combat System Team Trainers (SCSTTs) and the Engineering Production Model (EPM). Other modifications are made as required by the Submarine Undersea Warfare Training Committee (UWTC), and Submarine Multi Mission Team Trainer (SMMTT) modifications. All installations are at shore-based sites; funding is budgeted to allow Advanced Planning (AP) such as long-lead planning, site surveys, and preparation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC	TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
<i>RDT&E</i>																							0	0.0
<i>PROCUREMENT</i>																								
INSTALLATION KITS																							0	0.0
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT	2	2.7	1	3.5	3	6.4	1	6.2	5	9.6	5	8.5	7	7.9	7	6.1	3	5.3	3	5.4			37	60.8
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST			0	0.1	3	0.1	0	0.2	4	0.6	1	0.5	4	0.6	11	0.7	4	0.4	3	0.7	7	0.0	37	3.9
TOTAL PROCUREMENT	2	2.7	1	3.5	3	6.4	1	6.2	5	9.6	5	8.5	7	7.9	7	6.1	3	5.3	3	5.4	0	0.0	37	64.7

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

*NOTE: FY96 & Prior funds are provided from 87YZ LI8089

NOTE: The total program quantity reflects inventory objectives for this item.

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: SCSTT MODIFICATION TITLE: TD003 Combat System Team Trainer

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months

PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 1998: 03/98

FY 1999: 01/99

FY 2000: 03/00

DELIVERY DATE: FY 1998: 05/98

FY 1999: 02/00

FY 2000: 10/00

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	0	0.0	0	0.1	2	0.0																	2	0.1
FY 1997 EQUIPMENT			AP	0.0	AP	0.0	AP	0.0	1	0.1													1	0.2
FY 1998 EQUIPMENT					1	0.1	AP	0.1	2	0.2													3	0.4
FY 1999 EQUIPMENT							AP	0.1	1	0.2													1	0.2
FY 2000 EQUIPMENT									AP	0.0	1	0.4	3	0.4	1	0.1							5	0.8
FY 2001 EQUIPMENT										AP	0.1	1	0.1	4	0.1								5	0.3
FY 2002 EQUIPMENT											AP	0.0	6	0.1	AP	0.0	1	0.1					7	0.2
FY 2003 EQUIPMENT													AP	0.0	4	0.2	2	0.2	1	0.0			7	0.4
FY 2004 EQUIPMENT															AP	0.0	AP	0.0	3	0.3			3	0.0
FY 2005 EQUIPMENT																	AP	0.0	3	0.1			3	0.0
TO COMPLETE																								

INSTALLATION SCHEDULE:

SHIP AVAILABILITIES

	FY 1997 & Prior	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	0	0	2	1	0	0	0	0	0	0	1	2	1	0	1	0	0	0	3	1	0	6	4	1	0	0	4	0	0	0	1	2	0	7	37
Out	0	0	0	2	1	0	0	0	0	0	0	1	2	1	0	1	0	0	0	3	1	0	6	4	1	0	0	4	0	0	0	1	2	7	37

P-3A

CLASSIFICATION: **UNCLASSIFIED**

February-99

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: Sonar Acoustic Team Trainer TYPE MODIFICATION: UPGRADES MODIFICATION TITLE: TD005 Acoustic System Team Trainer

DESCRIPTION/JUSTIFICATION:

Provisions are made to the Sonar Acoustic Team Trainers to include block changes as a result of tactical ARCI and SMMTT modifications. All installations are at shore-based sites; funding is budgeted to allow Advanced Planning (AP) such as long-lead planning, site surveys, and preparation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		IC	TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$		
<i>RDT&E</i>																							0	0.0
<i>PROCUREMENT</i>																								
INSTALLATION KITS																							0	0.0
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT	3	11.0	4	9.7	1	6.9	3	7.9	6	8.1	4	12.7	2	4.2	4	8.0	2	5.1	3	7.5			32	81.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST	0		1	0.4	4	0.1	0	0.2	6	0.3	1	0.5	5	0.6	6	0.3	0	0.0	2	0.0	7		32	2.4
TOTAL PROCUREMENT	3	11.0	4	9.7	1	6.9	3	7.9	6	8.1	4	12.7	2	4.2	4	8.0	2	5.1	3	7.5	0	0.0	32	83.4

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: Sonar Acoustic Team Trainer MODIFICATION TITLE: TD005 Acoustic System Team Trainer

INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: Months PRODUCTION LEADTIME: Months

CONTRACT DATES: FY 1998: 04/98 FY 1999: 02/99 FY 2000: 02/00

DELIVERY DATE: FY 1998: 04/00 FY 1999: 07/00 FY 2000: 08/00

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	
PRIOR YEARS			1	0.2	2	0.0																	3	0.2	
FY 1997 EQUIPMENT			AP	0.2	2	0.1	AP	0.1	2	0.1													4	0.4	
FY 1998 EQUIPMENT					AP	0.0	AP	0.1	1	0.0													1	0.1	
FY 1999 EQUIPMENT							AP	0.1	2	0.1	1	0.1											3	0.3	
FY 2000 EQUIPMENT									1	0.1	AP	0.3	3	0.3	2	0.1							6	0.8	
FY 2001 EQUIPMENT											AP	0.1	2	0.3	2	0.2							4	0.6	
FY 2002 EQUIPMENT												AP	0.0	2	0.1								2	0.1	
FY 2003 EQUIPMENT														AP	0.0	AP	0.3	2	0.2	2	0.2	2	0.2	4	0.5
FY 2004 EQUIPMENT																AP	0.1	AP	0.1	2	0.1	2	0.1	2	0.2
FY 2005 EQUIPMENT																		AP	0.0	3	0.1	3	0.0	3	0.0
TO COMPLETE																									

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1997	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
	& Prior	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	1	0	2	2	0	0	0	0	0	2	1	2	1	0	1	0	0	0	3	2	0	2	2	2	0	0	0	0	0	0	2	0	0	7	32
Out	1	0	0	2	2	0	0	0	0	0	2	1	2	1	0	1	0	0	0	3	2	0	2	2	2	0	0	0	0	0	0	2	0	7	32

CLASSIFICATION: **UNCLASSIFIED**

February-99

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: CBOT TYPE MODIFICATION: UPGRADES MODIFICATION TITLE: TD006 Combat Control Operator Trainer

DESCRIPTION/JUSTIFICATION:
 The CBOT will support CCS MK1/MK2. All installations are at shore-based sites; funding is budgeted to allow Advanced Planning (AP) such as long-lead planning, site surveys, and preparation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

FINANCIAL PLAN (IN MILLIONS)	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
<i>RDT&E</i>																								0	0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																								0	0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT	2	0.9	0	0.0	4	1.2	5	1.5	4	0.6	4	0.6	0	0.0	0	0.0	2	2.2	2	2.2			23	9.2	
EQUIPMENT NONRECURRING																								0	0.0
ENGINEERING CHANGE ORDERS																								0	0.0
DATA																								0	0.0
TRAINING EQUIPMENT																								0	0.0
SUPPORT EQUIPMENT																								0	0.0
OTHER																								0	0.0
OTHER																								0	0.0
OTHER																								0	0.0
INTERIM CONTRACTOR SUPPORT																								0	0.0
INSTALL COST	0	0.0	0	0.2	2	0.0	4	0.1	0	0.1	5	0.0	8	0.0	0	0.0	0	0.0	2	0.0	2	0.1	23	0.4	
TOTAL PROCUREMENT	2	0.9	0	0.0	4	1.2	5	1.5	4	0.6	4	0.6	0	0.0	0	0.0	2	2.2	2	2.2	0	0.1	23	9.2	

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: CBOT MODIFICATION TITLE: TD006 Combat Control Operator Trainer

INSTALLATION INFORMATION

METHOD OF IMPLEMENTATION: Navy Field Activity Teams with Prime Contractor Support

ADMINISTRATIVE LEADTIME: _____ Months PRODUCTION LEADTIME: _____ Months
 CONTRACT DATES: FY 1998: 01/98 FY 1999: 02/99 FY 2000: 02/00
 DELIVERY DATE: FY 1998: 03/99 FY 1999: 10/00 FY 2000: 04/02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total			
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
PRIOR YEARS			AP	0	2	0.0																		2	0.0	
FY 1997 EQUIPMENT			0	0																				0	0.0	
FY 1998 EQUIPMENT					AP	0.0	4	0.1																4	0.1	
FY 1999 EQUIPMENT							AP	0.0	AP	0.0	5	0.0												5	0.0	
FY 2000 EQUIPMENT									AP	0.1	AP	0.0	4	0.0											4	0.1
FY 2001 EQUIPMENT											AP	0.0	4	0.0											4	0.0
FY 2002 EQUIPMENT																									0	0.0
FY 2003 EQUIPMENT																									0	0.0
FY 2004 EQUIPMENT																	AP	0.0	2	0.0					2	0.1
FY 2005 EQUIPMENT																			AP	0.0	2	0.1	2	0.0	2	0.0
TO COMPLETE																										

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1997 & Prior	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
In	0	0	2	0	0	0	4	0	0	0	0	0	0	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	2	23				
Out	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0	5	0	0	0	8	0	0	0	0	0	0	0	0	2	23					

P-3A

CLASSIFICATION: **UNCLASSIFIED**

February-99

P3A **INDIVIDUAL MODIFICATION**
 MODELS OF SYSTEM AFFECTED: AN/BSY-1 TEAM TRAINERS TYPE MODIFICATION: UPGRADES MODIFICATION TITLE: TD011 AN/BSY-1 CC/A Team Trainer

DESCRIPTION/JUSTIFICATION:

The modifications provide upgrades to match the tactical systems for the trainers and Acoustic and Combat Control Engineering Procurement Models (EPM) for the AN/BSY-1 trainers. All installations are at shore-based sites; funding is budgeted to allow Advanced Planning (AP) such as long-lead planning site surveys, and preparation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		TC		TOTAL		
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	
FINANCIAL PLAN (IN MILLIONS)																									
<i>RDT&E</i>																								0	0.0
<i>PROCUREMENT</i>																									
INSTALLATION KITS																								0	0.0
INSTALLATION KITS NONRECURRING																									0.0
EQUIPMENT	2	1.2	2	4.2	1	4.3	3	6.3	2	6.0	3	6.6	0	0.3	0	0.3	0	0.3	0	0.3				13	29.8
EQUIPMENT NONRECURRING																									0.0
ENGINEERING CHANGE ORDERS																									0.0
DATA																									0.0
TRAINING EQUIPMENT																									0.0
SUPPORT EQUIPMENT																									0.0
OTHER																									0.0
OTHER																									0.0
OTHER																									0.0
INTERIM CONTRACTOR SUPPORT																									0.0
INSTALL COST			1	0.0	2	0.4	0	0.2	4	0.2	1	0.3	3	0.0	1	0.0	1	0.0	0	0.0	0	0.0		13	1.4
TOTAL PROCUREMENT	2	1.2	2	4.2	1	4.3	3	6.3	2	6.0	3	6.6	0	0.3	0	0.3	0	0.3	0	0.3	0	0.0		13	31.2

P-1 SHOPPING LIST

CLASSIFICATION:

UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: AN/BSY-1 TEAM TRAINERS MODIFICATION TITLE: TD011 AN/BSY-1 CC/A Team Trainer

INSTALLATION INFORMATION:
METHOD OF IMPLEMENTATION: Navy Field Activity Teams with Prime Contractor Support.

ADMINISTRATIVE LEADTIME: _____ Months PRODUCTION LEADTIME: _____ Months
 CONTRACT DATES: FY 1998: 02/98 FY 1999: 02/99 FY 2000: 02/00
 DELIVERY DATE: FY 1998: 04/00 FY 1999: 09/00 FY 2000: 01/02

(\$ in Millions)

Cost:	Prior Years		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		FY 2004		FY 2005		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	0		1	0.0	1	0.2																	2	0.2
FY 1997 EQUIPMENT			AP	0.0	1	0.2	AP	0.0	1	0.0													2	0.2
FY 1998 EQUIPMENT					AP	0.0	AP	0.1	1	0.1													1	0.2
FY 1999 EQUIPMENT							AP	0.1	3	0.1													3	0.2
FY 2000 EQUIPMENT									AP	0.0	AP	0.1	2	0.0									2	0.2
FY 2001 EQUIPMENT											AP	0.0	1	0.0	1	0.0	1	0.0					3	0.1
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
FY 2004 EQUIPMENT																								
FY 2005 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE: SHIP AVAILABILITIES

	FY 1997 & Prior	FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
In	1	0	1	1	0	0	0	0	0	1	1	2	0	0	1	0	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	13	
Out	1	0	0	1	1	0	0	0	0	0	1	1	2	0	0	0	1	0	0	2	1	0	0	0	0	1	0	0	0	0	0	0	13		

SIMULATOR AND TRAINING DEVICE JUSTIFICATION (\$000)							DATE			
Appropriation P-1 Line Item		Weapon System (if applicable)			Equipment Nomenclature			PE		
5661		N/A			Submarine Training Device Mods			0804731N		
Fin Plan	Prior Years	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	TOTAL
Quantity		21	13	18	17	10	11	8	8	98
Proc		\$22,209	\$23,703	\$27,579	\$29,837	\$18,113	\$17,669	\$18,026	\$18,252	\$175,388
RDT&E										
O&S										
<p>(L/I 566100) This line provides funds to modify/upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment and to enhance trainer systems capabilities.</p> <p>(TD002) SUBMARINE TRAINING DEVICE MODS Provides funding for minor modifications which are improvements/upgrades to in-service submarine training systems which are centrally managed systems. These improvements/upgrades are required to keep training systems compatible with equivalent changes made to fleet operational equipment and to change trainer capabilities to meet emergent training requirements.</p> <p>(TD003) SUBMARINE COMBAT SYSTEM TEAM TRAINER (SCSTT) To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shorebased training facilities capable of training submarine combat system team personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment.</p> <p>(TD005) SUBMARINE ACOUSTIC TEAM TRAINER The AN/BQQ-5 and AN/BQQ-6 Series Sonar Systems are installed aboard SSN and SSBN Class submarines. The Submarine Acoustic Trainer, simulates the digital data processing and graphic displays of the associated tactical system.</p> <p>(TD006) SUBMARINE COMBAT CONTROL OPERATOR TRAINER / COMMON BASIC OPERATOR TRAINER (CBOT) The purpose of these devices is to provide pipeline training to submarine force personnel who require basic and advanced operator trainer.</p>										
		ITEM NO.	170	PAGE NO.	17	EXHIBIT 43A PAGE 1 of 5				
						P-43 Simulator & Training Device Justification				

* Note: FY96 funds are provided from 87YZ LI 8089

Classification

UNCLASSIFIED

SIMULATOR AND TRAINING DEVICE JUSTIFICATION (\$000)			DATE
			February 1999
Appropriation P-1 Line Item	Weapon System (if applicable)	Equipment Nomenclature	PE
5661	N/A	Submarine Training Device Mods	0804731N
<p><u>(TD011) AN/BSY-1 TRAINER IMPROVEMENTS</u> AN/BSY-1 trainers support shorebased training for crews of SSN 751 Class submarines fitted with AN/BSY-1 the integrated Combat Control / Acoustic (CC/A). CC/A Team Trainers support subteam training in combat control and acoustics as well as full combat system team training.</p> <p><u>(TD012) SUBMARINE BATTLE FORCE TACTICAL TRAINING (BFTT) DEVICE MODS</u> The Submarine BFTT device consists of a carry-on unit that will provide the CO/OOD with a display depicting the position and modes of each participant and target in the BFTT scenario. It will consist of a computer and interface equipment with software designed to interface with and interpret the BFTT system, and to receive and transmit tactical data using own ship's communications equipment.</p> <p><u>(TD6IN) INSTALLATION OF EQUIPMENT</u> Funding is for the installation of trainers, installation support for trainers, and installations in other shore facilities.</p>			
	ITEM NO. 170	PAGE NO. 18	EXHIBIT 43A PAGE 2 of 5 P-43 Simulator & Training Device Justification

* Note: FY96 funds are provided from 87YZ LI 8089

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SIMULATOR AND TRAINING DEVICE JUSTIFICATION (Page 2) (\$000)							DATE February-99					
Appropriation P-1 Line Item Other Procurement, Navy LI: 5661			Weapon System (if applicable)		IOC Date		Equipment Nomenclature SUBM TRAINING DEVICE MODS			PE 0804731N		
Training Device By Type	Site	Delivery Date	Ready for Training Date	Average Student Throughput	FY98		FY99		FY00		FY01	
					QTY	Cost	QTY	Cost	QTY	Cost	QTY	Cost
TD002 SUBMARINE TRAINING DEVICE MODS												
VAR	VAR	VAR	VAR	N/A	VAR	\$751	VAR	\$983	VAR	\$2,081	VAR	\$289
TD003 SUBMARINE COMBAT SYSTEM TEAM TRAINERS MODS												
SCSST MK2 AC2	SUBTRACEN, Pearl	05/98	06/98	1,890	1	\$617						
EPM MK2 BLOCK 1C	NUWC DIV, Newport RI	02/00	n/a	n/a	1	\$3,392						
EPM GSS WEPS	NUWC DIV, Newport RI	02/00	n/a	n/a	1	\$780						
EPM Non-WEPS	NUWC DIV, Newport RI	01/00	n/a	n/a			1	\$4,521				
CCTT MK2 D0 BIC KIT	TRITRAFAC, Bangor	02/00	09/02	388					1	\$501		
SMMTT3 H/W CC EPM	NUWC DIV, Newport RI	10/00	n/a	n/a					1	\$350		
SMMTT3 S/W CC EPM	NUWC DIV, Newport RI	08/02	n/a	n/a					1	\$3,222		
CCS MK118 SMMTT CC EPM	NUWC DIV, Newport RI	01/02	n/a	n/a					1	\$2,020		
CCS STVTS EPM	TBD	09/03	n/a	n/a					1	\$1,915		
EPM SMMTT 3 B1C	NUWC DIV, Newport RI	08/03	n/a	n/a							1	\$3,724
EPM SMMTT COTS	NUWC DIV, Newport RI	08/02	n/a	n/a							1	\$870
SCSTT MK2 D0 AC3 KIT	SUBSCOL, Groton	10/02	12/02	2,160							1	\$250
CCTT MK2 D0 B1C KIT	TRITRAFAC KB	11/02	01/03	312							1	\$595
CCS PIG EPM	TBD	09/03	n/a	n/a							1	\$1,620
TD005 SUBMARINE ACOUSTIC TEAM TRAINERS MODIFICATIONS												
EPM/A ARCI-I	LMFS, Manassas VA	04/00	n/a	n/a	1	\$5,076						
EPM/A MFAI	LMFS, Manassas VA	07/00	n/a	n/a			1	\$1,304				
EPM/A ARCI-II	LMFS, Manassas VA	07/00	n/a	n/a			1	\$4,405				
SMMTT/A SYS 2 ARCI-II Kit	SUBTRACEN, Pearl	11/01	01/01	1,736			1	\$200				
				P-1 SHOPPING LIST ITEM NO. 170		PAGE NO. 19		EXHIBIT P-43 page 3 of 5				

Classification:

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SIMULATOR AND TRAINING DEVICE JUSTIFICATION (Page 2) (\$000)							DATE February-99					
Appropriation P-1 Line Item Other Procurement, Navy LI: 5661			Weapon System (if applicable)		IOC Date		Equipment Nomenclature SUBM TRAINING DEVICE MODS				PE 0804731N	
Training Device By Type	Site	Delivery Date	Ready for Training Date	Average Student Throughput	FY98		FY99		FY00		FY01	
					QTY	Cost	QTY	Cost	QTY	Cost	QTY	Cost
<i>TD005 ACOUSTIC TEAM TRAINERS MODIFICATIONS Continued</i>												
SMMTT 2 ARCI II (Q6)	NUWCDIV, Newport RI	01/02	01/02	n/a					1	1,907		
SMMTT 2 KIT (Q6)	TRITRAFAC, Bgr	07/02	09/02	TBD					1	652		
SMMTT 2 ARCI-III KIT SYS 6	SUBSCOL, Groton	10/02	12/02	n/a					1	507		
SMMTT 3 PROTO	TBD	08/02	n/a	n/a					1	1,158		
SMMTT 3 EPM H/W	TBD	08/02	n/a	n/a					1	773		
SMMTT SPECTRAL	LMFS, Manassas VA	07/02	n/a	n/a					1	1,462		
SMMTT 2 ARCI II KIT	TRITRAFAC, KB	11/02	01/03	TBD							1	\$725
SMMTT 3 TACT ACOUS	TBD	08/03	n/a	n/a							1	\$8,374
SMMTT 2 ARCI III KIT	SUBTRACEN, Pearl	01/03	03/03	1,736							1	\$268
SMMTT COTS	LMFS, Manassas VA	08/02	n/a	n/a							1	\$1,733
<i>TD006 SUBMARINE COMBAT CONTROL OP TRAINER MODIFICATION</i>												
CBOT EPM MK2B1C	NUWCDIV, Newport RI	03/99	n/a	n/a	1	\$289						
CBOT MK2B1C	SUBSCOL, Groton	03/99	05/99	1,000	3	\$288						
CBOT EPM LINK 16	NUWCDIV, Newport RI	10/00	n/a	n/a			1	\$143				
CBOT LINK 16	SUBSCOL, Groton	11/00	12/00	1,000			3	\$142				
CBOT EPM LS	TBD	12/00	n/a	n/a			1	\$950				
CBOT EPM MK2B1C Weps	NUWCDIV, Newport RI	04/02	n/a	n/a					1	\$162		
CBOT MK2B1C Weps	SUBSCOL, Groton	04/02	05/02	1,000					3	\$162		
CBOT EPM TMA	NUWCDIV, Newport RI	04/02	n/a	n/a							1	\$158
CBOT TMA	SUBSCOL, Groton	04/02	05/02	1,000							3	\$158
				P-1 SHOPPING LIST ITEM NO. 170		PAGE NO. 20		EXHIBIT P-43 page 4 of 5				

Classification: **UNCLASSIFIED**

Classification

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SIMULATOR AND TRAINING DEVICE JUSTIFICATION (Page 2) (\$000)							DATE February-99					
Appropriation P-1 Line Item Other Procurement, Navy LI: 5661			Weapon System (if applicable)		IOC Date		Equipment Nomenclature SUBM TRAINING DEVICE MODS			PE 0804731N		
Training Device By Type	Site	Delivery Date	Ready for Training Date	Average Student Throughput	FY98		FY99		FY00		FY01	
					QTY	Cost	QTY	Cost	QTY	Cost	QTY	Cost
<u>TD011 AN/BSY-1 TRAINER MODIFICATION</u>												
BSY1/A EPM ARCI-II	LMFS	04/00	n/a	n/a	1	\$4,213						
AN/BSY-1 TT #1 ARCI -II Kit	SUBSCOL, Groton	09/00	10/00	3,930			1	\$801				
AN/BSY-1 TT #2 ARCI-II Kit	SUBTRACEN, Pearl	11/00	01/01	2,016			1	\$801				
BSY1/A EPM SMMTT 2	LMFS	07/00	n/a	n/a			1	\$4,470				
BSY-1 SMMTT 2 ARCI-III+	LMFS	01/02	n/a	n/a					1	\$5,431		
BSY-1 TT#1 ARCI-III+ Kit	SUBSCOL, Groton	01/02	03/02	3,930					1	\$400		
BSY-1/A EPM MPC	LMFS	01/02	n/a	n/a							1	\$5,513
BSY-1 TT #2 ARCI-III+ Kit	SUBTRACEN, Pearl	01/03	05/03	2,016							1	\$410
BSY-1 COTS	LMFS	11/03	n/a	n/a							1	\$500
<u>TD012 SUBMARINE BATTLE FORCE TAC TRN</u>												
BFTT c/o DEVICE MODS #1	Squadron 2 Groton	02/99	04/99		1	\$153						
BFTT c/o DEVICE MODS #2	Squadron 6 Norfolk	09/99	11/99		1	\$153						
BFTT c/o DEVICE MODS #3	Squadron 11 San Diego	09/99	11/99		1	\$153						
BFTT c/o DEVICE MODS #4	Squadron 1 Pearl Harbor	09/99	11/99		1	\$153						
BFTT c/o DEVICE MODS #5	Squadron 4 Groton	10/99	12/99		1	\$153						
BFTT c/o DEVICE MODS #6	Squadron 8 Norfolk	10/99	12/99		1	\$153						
BFTT c/o DEVICE MODS #7	Squadron 7 Pearl Harbor	10/99	12/99		1	\$152						
BFTT c/o DEVICE MODS #8	Squadron 3 Pearl Harbor	10/99	12/99		1	\$152						
BFTT c/o DEVICE MODS #9	Squadron 2 Groton	01/00	01/00		1	\$152						
BFTT c/o DEVICE MODS #10	Squadron 4 Groton	01/00	01/00		1	\$152						
BFTT c/o DEVICE MODS #11	Squadron 6 Norfolk	02/00	02/00		1	\$152						
BFTT c/o DEVICE MODS #12	Squadron 8 Norfolk	02/00	02/00		1	\$152						
BFTT c/o DEVICE MODS #13	Squadron 11 San Diego	02/00	02/00				1	\$104				
BFTT c/o DEVICE MODS #14	Squadron 1 Pearl Harbor	11/00	11/00						1	\$106		
BFTT c/o DEVICE MODS #15	Squadron 7 Pearl Harbor	11/01	11/01								1	\$108
			P-1 SHOPPING LIST ITEM NO. 170		PAGE NO. 21		EXHIBIT P-43 page 5 of 5					

Classification:

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